

Volume 8

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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

Before The Honorable William H. Alsup, Judge

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|--------------------|---|--|
| SONOS, INC., |) | |
| |) | |
| Plaintiff and |) | |
| Counter-Defendant, |) | |
| |) | |
| VS. |) | NO. C 20-6754 WHA |
| |) | Related Case No. C 21-07559 WHA |
| GOOGLE, LLC, |) | |
| |) | |
| Defendant and |) | |
| Counter-Claimant. |) | |
| |) | |

San Francisco, California
Wednesday, May 17, 2023

TRANSCRIPT OF JURY TRIAL PROCEEDINGS

APPEARANCES:

For Plaintiff/Counter-Defendant:

ORRICK, HERRINGTON & SUTCLIFFE LLP
The Orrick Building
405 Howard Street
San Francisco, California 94105
BY: CLEMENT S. ROBERTS, ATTORNEY AT LAW
ELIZABETH R. MOULTON, ATTORNEY AT LAW

ORRICK, HERRINGTON & SUTCLIFFE LLP
777 South Figueroa Street, Suite 3200
Los Angeles, California 90017
BY: ALYSSA M. CARIDIS, ATTORNEY AT LAW
GEOFFREY G. MOSS, ATTORNEY AT LAW

(APPEARANCES CONTINUED ON FOLLOWING PAGE)

REPORTED BY: Marla F. Knox, CSR No. 14421, RPR, CRR, RMR
United States District Court - Official Reporter

APPEARANCES: (CONTINUED)

For Plaintiff/Counter-Defendant:

LEE SULLIVAN SHEA & SMITH LLP
656 West Randolph Street
Floor 5W
Chicago, Illinois 60661

BY: DAVID R. GROSBY, ATTORNEY AT LAW
SEAN M. SULLIVAN, ATTORNEY AT LAW
COLE B. RICHTER, ATTORNEY AT LAW
JOHN DAN SMITH, III, ATTORNEY AT LAW

ORRICK, HERRINGTON & SUTCLIFFE LLP
51 West 52nd Street
New York, New York 10019

BY: JOSEPH R. KOLKER, ATTORNEY AT LAW

For Defendant/Counter-Claimant:

QUINN, EMANUEL, URQUHART & SULLIVAN LLP
50 California Street, 22nd Floor
San Francisco, California 94111

BY: SEAN PAK, ATTORNEY AT LAW
MELISSA J. BAILY, ATTORNEY AT LAW
JAMES D. JUDAH, ATTORNEY AT LAW
LINDSAY COOPER, ATTORNEY AT LAW
IMAN LORDGOOEI, ATTORNEY AT LAW
JASON C. WILLIAMS, ATTORNEY AT LAW

Also Present: **Kevin MacKay, Google Representative**
Alaina Kwasizur, Sonos Representative

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7:25 a.m.

P R O C E E D I N G S

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(Proceedings were heard out of the presence of the jury:)

THE CLERK: All rise. Court is now in session. The Honorable William Alsup is now presiding.

THE COURT: Thank you. Please be seated.

(Pause in proceedings.)

THE COURT: All right. Everyone is here, not the jury.

I'm inclined to agree with Sonos that the expert exceeded his report on direct examination and that we should strike that part that deals with idle mode.

I'll let Google have -- try to convince me otherwise.

(Pause in proceedings.)

THE COURT: Only the part by the expert, not the part by the witness who was Mr. --

MR. PAK: MacKay, Your Honor.

THE COURT: -- MacKay. He's not bound by the expert report requirements but the expert is.

MR. PAK: Thank you, Your Honor.

So I think it comes back to the -- the language of the function itself that this is talking about stopping the current app.

There's a different command, Your Honor, in the system for

1 stopping current playback, and I think that Dr. Schonfeld made
2 clear that he was talking about this function throughout and he
3 talked about the stopping and the terminating language with
4 respect to the app, and that's the reason why we're --

5 **THE COURT:** All right.

6 **MR. PAK:** -- taking this position.

7 **THE COURT:** What you can do is read -- he can read
8 from his own report --

9 **MR. PAK:** Yes.

10 **THE COURT:** -- the exact words.

11 **MR. PAK:** Thank you, Your Honor.

12 **THE COURT:** And -- but he cannot do this idle -- idle
13 thing.

14 **MR. PAK:** Yes, Your Honor.

15 **THE COURT:** So I'm going to tell the jury to disregard
16 his testimony about idle, and then you can -- is he still on
17 the stand by your examination.

18 **MR. PAK:** Yes, Your Honor.

19 **THE COURT:** All right. Then you can say "In lieu of
20 that," get the report out and read it exactly, and no one can
21 criticize you for that.

22 **MR. PAK:** Thank you, Your Honor.

23 **THE COURT:** Is that satisfactory?

24 **MR. PAK:** Yes, Your Honor.

25 **THE COURT:** Let me ask.

1 **MR. ROBERTS:** It is, Your Honor. Thank you.

2 **THE COURT:** All right.

3 Okay. Now, how else can I help you this morning?

4 **MR. PAK:** Your Honor, I think from our side we wanted
5 your guidance. We will be submitting later today our written
6 submission on Rule 50(a); but if you'd like to hear some
7 argument on any of those issues, we have counsel prepared to
8 deal with them.

9 I think, for example, I know there was a filing on the
10 IFTTT issue. If, Your Honor, would like further argument on
11 that, we would be happy to entertain that.

12 There's also the issue on their failure of proof on some
13 of the claim limitations.

14 So it's up to Your Honor whether you wanted to deal with
15 that this morning.

16 **THE COURT:** Why do I need more argument on IFTTT?

17 By the way, Mr. Roberts has larded the record again with
18 yet another IFTTT last night; right?

19 **MR. ROBERTS:** I did.

20 **THE COURT:** I'm going to throw IFTTT out. It's beyond
21 the pale. I don't need any more argument.

22 **MR. PAK:** Thank you, Your Honor.

23 **THE COURT:** I'm going to tell the jury in due course
24 that they must disregard the IFTTT, but there are some patent
25 licenses in the record. I'm not going to throw out damages

1 altogether. I believe that the jury could -- with the record
2 they got could come back with a decent award for Sonos.

3 **MR. PAK:** Thank you, Your Honor.

4 **MR. ROBERTS:** Thank you, Your Honor.

5 **THE COURT:** All right. I'm also going to tell them
6 that the '966 does not apply to -- it only applies if it is
7 interconnected with speakers. I disagree vehemently with this
8 overreaching by Sonos that it applies just merely because the
9 app is on the -- on the home page.

10 So I'm sorry. We briefed it to the nth degree. Your
11 record is good for appeal.

12 **MR. ROBERTS:** Thank you, Your Honor.

13 **THE COURT:** All right.

14 **MR. ROBERTS:** This is Mr. Roberts.

15 The only thing I wanted to say was that the reason I put
16 in that additional brief was because I wanted to explain the
17 way the testimony had actually come in. Everything we had done
18 before that was about what we expected the testimony to be.
19 I'm not arguing anything, Your Honor. I'm just explaining why
20 I submitted it.

21 **THE COURT:** All right. But it didn't surprise me in
22 any way the way the testimony came in.

23 I'm going to do a -- try to do an order in due course, a
24 memorandum opinion. I don't have time now to do it and explain
25 in detail now, but in due course I will explain in some detail

1 why I have made this determination. There's just too much.

2 Which leads me to the next thing. We've been working very
3 hard and do not have for you a set of instructions or verdict
4 form. Part of it is because you lawyers have failed us. You
5 have so many claims, so many subparts. We're trying to come up
6 with matrixes that will help us help the jury, but you have
7 failed me.

8 Why have you failed me? You have failed to come up with
9 simplified ways to put this case to the jury. For example, I'm
10 not -- I can't order you to do this, but on the '966 you got
11 how many claims in suit? Five or six? How many? I forgot.

12 **MR. PAK:** Six, I believe, Your Honor.

13 **THE COURT:** Six. Do they -- can't they all stand or
14 fall together? I think in other cases lawyers -- this many
15 lawyers would say, "Hey, just tell them to go with claim 1 and
16 all the others will stand or fall with claim 1."

17 Yeah, technically you've got an extra little argument here
18 or there, but for the sake of simplicity for the jury to decide
19 a case like this, isn't it better that we put it to them in
20 a -- with the main issues, not all the detail but the main
21 issues?

22 **MR. ROBERTS:** Your Honor, we'll consider it.

23 **THE COURT:** No, no, no. You won't do that.

24 What?

25 **MR. ROBERTS:** I said we'll consider it and come back

1 to you.

2 **THE COURT:** All right. Well, please, that would help.
3 Other things, are there other ways we could streamline
4 this for the jury?

5 **MR. PAK:** Your Honor, if it would help -- Your Honor,
6 we will -- for the purposes of trial, we will take off the
7 table the anticipation question on one of the patents, the
8 '966.

9 **THE COURT:** Is that the one where you had the --

10 **MR. PAK:** Squeezebox system.

11 **THE COURT:** Squeezebox, yeah. My law clerk and I
12 spent 30 minutes on that this morning, and I said I don't
13 believe that Google really believes that there's anticipation.
14 That's just another Mr. Pak add-on argument that he's got -- he
15 won't let go of anything, and I said but he will let go of that
16 argument because it's a loser.

17 **MR. PAK:** I'm letting go of that argument.

18 **THE COURT:** All right. And obviousness is your main
19 point.

20 **MR. PAK:** That's right, Your Honor.

21 **THE COURT:** Why do you want to mess it up with
22 anticipation by the Squeezebox?

23 So, anyway, that's 30 minutes of our time this morning
24 down the drain on account of you wouldn't give that up earlier.
25 Thank you, though, for doing that.

1 **MR. PAK:** Okay. Thank you.

2 **THE COURT:** All right. That issue is out. Anything
3 else you want to give up?

4 **MR. PAK:** I don't think so, but I will confer with
5 Mr. Roberts and we'll see if we can try to work on the
6 rise-and-fall issue.

7 **THE COURT:** How about coming up with an agreement on
8 what is an ordinary skill in -- a person of ordinary skill in
9 the art?

10 **MR. ROBERTS:** That's easy. We can do that.

11 **MR. PAK:** We'll work that out, Your Honor.

12 I did want to ask for your Court's guidance. I think when
13 we are done with our case, Dr. Almeroth will be testifying in
14 his rebuttal to the prior art.

15 I'm not going to go into the written description issue on
16 the current patents in suit, but I did want to get into the
17 record the earlier applications and the provisional.

18 Dr. Almeroth testified that they are exactly the same on his
19 direct examination, and I would like to test that on cross and
20 I wanted to ask for your honor's permission to do that. It
21 will not be a lengthy examination, but I did want to get that
22 record before the jury.

23 **THE COURT:** Any problem with that?

24 **MR. ROBERTS:** I think that that would be okay,
25 Your Honor, provided it's limited to the scope of the direct.

1 If it's going outside the scope of the direct and he's getting
2 into written description. They said written description was
3 not going to be presented to the jury; and so if they want it
4 to test credibility, I don't think I can object. But if they
5 want to use it to try to argue about written description, I
6 think that that's not part of the case.

7 **THE COURT:** Well, I -- help me remember. Is written
8 description an issue for the jury?

9 **MR. PAK:** The written description issue right now is
10 not an issue for the jury, Your Honor, because Your Honor had
11 ruled on the current patents in suit.

12 I think the priority date issue is a separate issue, which
13 is: What is the date that Sonos is entitled to? And they have
14 a burden of proving that alleged priority date, which goes back
15 to the other issue. So that's the reason why I think it's
16 still an issue in the case as Your Honor has been exploring.

17 But, again, I do -- just for the jury's purpose, I do want
18 to test his statement on direct examination that they were all
19 the same, and that -- that would be the purpose.

20 **MR. ROBERTS:** So, again, there was an actual --
21 I believe, Mr. Pak can correct me if I'm wrong, that there was
22 a stipulation that -- between the parties that -- not just that
23 Your Honor ruled on it, but there was a stipulation between the
24 parties that written description would not be presented to the
25 jury.

1 Second, with respect to priority date, he's dead wrong
2 about who has the burden of proof on it, and we have put that
3 law in the submission we gave to Your Honor this morning. They
4 said that they -- that we had the burden of proof on it last
5 night. We put in case law showing that that's absolutely
6 wrong. That's not the way it works at all. I'll leave that to
7 the briefing.

8 In addition, priority date, this is yet another brand new
9 argument. There's no priority date argument in the expert
10 reports. There's no priority date argument in the pretrial.
11 There's no priority date argument in the -- in the affirmative
12 offenses pled in the answer. There's no priority date argument
13 anywhere.

14 We pointed this out to Your Honor in the brief. We went
15 all the way through all of the various things in the 55-page
16 behemoth we filed, and I do apologize for that, Your Honor. We
17 do appreciate how hard you're working.

18 But we put all of the places where they should have, if
19 they wanted to challenge the priority date, put that argument
20 and it wasn't in any of them.

21 And that is a question of fact, and we have not developed
22 a factual record on the priority date issue. We have not taken
23 expert discovery on it. We have not done expert reports on it.
24 And to suggest that he's going to come in here and depose an
25 expert who has not offered any opinions about priority date and

1 who has not prepared a report about priority date in support of
2 a priority date argument is grossly unfair.

3 **MR. PAK:** I can respond briefly, Your Honor.

4 We did deal with this issue in the showdown and both
5 Dr. Almeroth and Dr. Schonfeld did provide opinions on whether
6 Sonos is entitled to a priority date or not. We disagree on
7 the law.

8 But I think that by having Dr. Almeroth on direct
9 examination say all the figures are the same, all the columns
10 are the same, the specifications are the same going back to the
11 original provisional date opened the door. That's a factual
12 issue, but we are now allowed to contest that; and I believe
13 that it is ultimately their burden of persuasion to show that
14 they can claim priority back to the provisional.

15 **THE COURT:** Well, what do you -- what did we say at
16 the pretrial conference on the priority date? I thought it was
17 all tried on the basis of December 21, 2005.

18 **MR. ROBERTS:** It was. That's what we said. They
19 stipulated, Your Honor, to a conception date. There's an
20 agreed conception date of 2005 here. Their argument is -- goes
21 against that.

22 If -- the argument that Sonos -- or the idea that Sonos
23 conceived of the invention in 2005, had full possession of the
24 2005 but isn't entitled to a 2006 or at worse a 2007 priority
25 date is -- makes absolutely no sense. If Sonos had conceived

1 of the invention but now they're saying, oh, they didn't
2 actually have written description support for it, those two
3 things are completely incompatible.

4 **THE COURT:** No -- okay. Well, there are subparts
5 here. I'm going to make a ruling.

6 The Almeroth -- is that his name?

7 **MR. PAK:** Yes, Your Honor.

8 **THE COURT:** He did say what you say, and I'm going to
9 let you cross-examine him to show that it's not true.

10 **MR. PAK:** Thank you.

11 **THE COURT:** You can do that because it goes to
12 credibility and that's enough.

13 Now, on the larger issue, we have the issues that the jury
14 should decide and we have a different set of issues that are of
15 great concern to me that I was bamboozled by Sonos.

16 I ruled for Sonos specifically culling out a sentence in
17 the specification that was served up by Sonos to say there was
18 an adequate written description. I did not realize that that
19 came in later by amendment. That would have made a difference
20 to me if I had known that.

21 So there's a whole different set of concerns of after this
22 verdict, we're going to get into whether or not and the extent
23 to which that makes a difference. And maybe I vacate a lot of
24 prior orders and maybe I go back and say there was fraud on the
25 Court. Maybe. Maybe not.

1 I'm not -- you-all have given me so much briefing on this
2 that I am -- I haven't read it all yet. One of the briefs was
3 55 pages long. I've read some of it.

4 I am very concerned. I'm going to tell you what I think
5 happened here. I believe what happened here is that there was
6 a submission made in 2006 to the PTO and at no time in the
7 early days did Sonos claim what it's now claiming to be the
8 invention. Instead, it claimed other things.

9 Then Google came out with its product. In other words,
10 Google was actually the one to invent the supposed invention
11 and came out into the marketplace; and then in response, Sonos
12 says "Wait a minute. They beat us to the market. Is there a
13 way to go back and say we invented that first?"

14 So they go into the conference room and they come up with
15 the idea: Okay. We'll come up with what's called a blocking
16 patent. Even though they got there first. We're going to find
17 a way to block it. And that then led to the application for
18 these two patents.

19 Then the good lawyers on the Sonos side realized that the
20 written description was inadequate, and they beefed it up with
21 that pulling one statement from the appendix and saying -- and
22 they -- it's a complicated arcane point of patent procedure,
23 and the patent examiner allowed the amendment.

24 And then -- now, ordinarily, as I understood the law
25 before this case, that would admit that your priority, because

1 it's new matter being submitted in, that your priority date
2 would be the -- would be well after Google had already been in
3 the market. So that would have meant that Google's product was
4 prior art.

5 But Sonos convinced the examiner that the priority date
6 should go all the way back to 2005, and the examiner went along
7 with that.

8 Now, that's the piece that troubles me. And I don't know
9 the -- we've been over this, but I'm saying to you that issue
10 is not going to the jury. This case has not been tried that
11 way, and -- but if there is a verdict for Sonos, and even maybe
12 if there is a verdict for Google, we're going to come back and
13 revisit that, and it could be that there's going to be a long
14 opinion by Judge Old Bill which addresses that point.

15 I haven't made up my mind on that because it gets into
16 things about Patent Office procedure that I need education on.
17 And it could be that Sonos did it correctly, but I am troubled
18 that that's the way our patent system would work; that Google
19 could come out with a product first and then only then does the
20 specification get changed to try to cover what Google had
21 already come out with. That, to me, is not the way the patent
22 system should work, and then we're going to visit that again.

23 But what I'm saying to you -- I don't want to hear
24 argument on this now. What I am going to say to you, though,
25 is we will -- that issue will not be submitted to the jury. It

1 will be for the Court to decide after we get to the -- get the
2 verdict. We've got a jury here. We've got to get their
3 verdict on the parts that we're trying to them, and then we're
4 going to save this other issue for post-verdict. Okay?

5 **MR. PAK:** Thank you, Your Honor.

6 **THE COURT:** All right. I am -- I have not read all
7 the things that -- I've read the one about -- the one I agree
8 with Sonos on, so we're going to start with that when the jury
9 comes back in.

10 **MR. PAK:** Thank you, Your Honor.

11 **MR. ROBERTS:** Thank you, Your Honor.

12 **THE COURT:** Is the jury all here?

13 **THE CLERK:** I was going to check if they're all here.

14 (Pause in proceedings.)

15 **MR. PAK:** Your Honor, just so the jury is not
16 confused, would it be acceptable for Your Honor to clarify that
17 your motion -- your ruling on Sonos' motion only applies to
18 Dr. Schonfeld and not to the factual testimony?

19 **THE COURT:** Yes, I will say that.

20 **MR. ROBERTS:** Your Honor, because it wasn't clear from
21 your ruling, is Mr. Pak going to be allowed to argue idle mode
22 in closing despite the fact that the theory was not disclosed?

23 **THE COURT:** Yes. The fact witnesses are not bound by
24 any expert report, but what he cannot argue is that Schonfeld
25 said anything about it.

1 **MR. ROBERTS:** Your Honor, I would submit that Google
2 should not be allowed to argue a noninfringement theory that
3 has never been disclosed before they got the fact witness up to
4 testify to the groundwork for it. To call a fact witness to
5 testify to the groundwork for a brand new fact theory not
6 disclosed in discovery not disclosed in the expert reports is
7 wrong.

8 **THE COURT:** It's close enough. This is -- this is in
9 the ballpark of factual information that can roll into evidence
10 as the case proceeds, and the expert report requirement only
11 applies to experts. So I disagree with you, but that point is
12 preserved for the multitudinous appeals in this case.

13 (Pause in proceedings.)

14 **THE CLERK:** They're all here now.

15 **THE COURT:** Let's bring them in. Let's bring back the
16 witness.

17 (Pause in proceedings.)

18 **DAN SCHONFELD,**
19 called as a witness for the Defendant, having been previously
20 duly sworn, testified further as follows:

21 **MR. PAK:** Dr. Schonfeld, if you could have the
22 rebuttal expert report. Do you have that in front of you,
23 paragraph 108? I will put it on the screen as well.

24 **THE COURT:** Is that the one you read to me yesterday?

25 **MR. PAK:** Yes, Your Honor.

1 **THE COURT:** All right. 108?

2 **MR. PAK:** Yes, Your Honor, Rebuttal Report 108.

3 **THE COURT:** All right.

4 **THE CLERK:** All rise for the jury.

5 (Proceedings were heard in the presence of the jury:)

6 **THE COURT:** Good morning, everyone. Please be seated.

7 Welcome back. Welcome back.

8 I want to say again how wonderful this jury is. Thank you
9 for being early. Here we are 11 minutes until 8:00 o'clock,
10 and you're ready to go. Thank you.

11 Okay. You remember yesterday we've got -- I apologize --
12 don't tell me -- Schonfeld from Chicago; right.

13 **THE WITNESS:** Yep.

14 **THE COURT:** He's on the stand, and he is the expert
15 witness for Google. And yesterday there was a -- a fight among
16 the lawyers about some of his testimony.

17 Now, remember I told you that these expert witnesses have
18 got to comply with some rules. One of the rules is they give a
19 detailed expert report that describes what they're going to say
20 at trial so the other side can get ready to meet that.

21 And the experts on direct examination, which is what we
22 are on right now, must stick to what's in the report and not
23 veer off into new matter.

24 Now, it's my determination after thinking about it
25 overnight that Dr. Schonfeld violated that rule, and he did

1 veer off into new material and that new material was something
2 about idle mode. Idle mode. Remember there was standalone
3 group and then idle mode. And that was not in his report.
4 Idle mode was not in his report so I'm striking from your
5 consideration and you should not -- you should disregard that
6 part of his testimony.

7 Now, what I will allow is for him to stick to what's in
8 his report and to read from his -- I think it's paragraph 108
9 of his report. That will be fine because that was in his
10 report.

11 And I will also say to you that this idea of idle mode
12 that came from -- MacKay was it?

13 **MR. PAK:** Yes, Your Honor.

14 **THE COURT:** -- Engineer MacKay, I'm not striking that
15 because he's a fact -- so called fact witness, and he's not
16 bound by these rules about experts. So that testimony stands
17 for MacKay but it does not stand for Schonfeld. So I'm
18 striking his testimony, Schonfeld, that deals with idle mode.

19 Okay?

20 **MR. PAK:** Thank you, Your Honor.

21 **THE COURT:** With that explanation, you may resume.
22 Please go ahead.

23 **MR. PAK:** All right.

24 **DIRECT EXAMINATION** (resumed)

25 \\\

1 **BY MR. PAK:**

2 **Q.** Good morning, Dr. Schonfeld.

3 **A.** Good morning.

4 **Q.** Let's take you to paragraph 108 of your rebuttal report.

5 **MR. PAK:** And, Mr. Fisher, let's have it on the
6 screen.

7 (Pause in proceedings.)

8 **BY MR. PAK:**

9 **Q.** Dr. Schonfeld, if you could take the time for the jury to
10 read exactly what you wrote in that paragraph.

11 **THE COURT:** Read slowly.

12 **BY MR. PAK:**

13 **Q.** Yeah, read slowly.

14 **A.** The entire paragraph?

15 **Q.** Yes, please.

16 **A.** (as read):

17 "As a further example" --

18 **THE COURT:** No, no. We can't hear you.

19 **THE WITNESS:** Oh, sorry.

20 **THE COURT:** You've got to use the microphone and read
21 slowly so the jury can pick it up.

22 By the way, let me explain to the jury. These expert
23 reports don't go into evidence. You won't have them in the
24 jury room. They never go in. They're hearsay. So this is --
25 I'm allowing him to read what was in his report as his

1 testimony, but don't think you're going to be getting these
2 reports in the jury room.

3 Okay. Go ahead.

4 **THE WITNESS:** (as read):

5 "As a further example, limitations 1.6 and 1.8, 9.3
6 and 9.5 require the controller to take particular actions
7 based on the first and second requests; namely, to" --
8 quote -- "cause the creation of the first second zone
9 scene; two, cause the indication of the first second zone
10 scene to be transmitted to the first second zone player;
11 and, three, cause storage of the first second zone scene.
12 As I described above, however, the accused steps do not
13 take place while the accused first zone player is in a
14 standalone mode. Rather, as I described, immediately upon
15 making the request to add a speaker to a group, the
16 speaker being added to the group or the group being
17 created begins playback or nonplayback as a group rather
18 than the remaining accused standalone mode."

19 "As one specific example, the source code I analyzed
20 in multizone, underscore, manager dot CC supra confirms
21 that group playback begins prior to adding the group. As
22 I discussed, for local, underscore, groups that are not
23 found within the set of speaker groups, underscore,
24 playback for that group is immediately terminated
25 ('StopCurrentApp') and only after this playback is

1 terminated on the speaker is the new group then added
2 through the AddGroup function."

3 "Accordingly, the controller does not" -- quote --
4 "cause the creation of the first second zone scene; two,
5 cause an indication of the first second zone scene to be
6 transmitted to the first second zone player; and, three,
7 cause storage of the first second zone scene" -- end
8 quote -- "while the accused zone player remains in the
9 accused standalone mode."

10 **BY MR. PAK:**

11 **Q.** Thank you, Doctor.

12 And do you stand by that testimony?

13 **A.** Yes, absolutely.

14 **Q.** Okay.

15 **MR. PAK:** Your Honor, may I proceed to the other
16 topics?

17 **THE COURT:** Yes. Please go ahead.

18 **MR. PAK:** Okay. Thank you.

19 So let's take that down.

20 **BY MR. PAK:**

21 **Q.** We're back to the prior art discussion that we were having
22 about the Sonos 2005 prior art system.

23 Are you with me?

24 **A.** I am.

25 **Q.** Okay.

1 **MR. PAK:** So let's put up, Mr. Fisher, DDX10.,
2 I believe, 57.

3 (Pause in proceedings.)

4 **BY MR. PAK:**

5 **Q.** So we finished claim 1 elements, some of the elements of
6 the '966. We're going back to the '885 patent, which is
7 written from the zone player perspective; is that correct?

8 **A.** That is correct.

9 **Q.** And what we -- what you have highlighted here in the last
10 two elements is 1.9 "After" -- starting with "After the given
11 one of the first and second zone scenes" and 1.10 "Based on the
12 instruction transitioning from operating in the standalone mode
13 to operating in accordance with the given one of the first and
14 second predefined grouping of zone players."

15 Do you see that?

16 **A.** I do.

17 **Q.** And before we get into some of the evidence, what is your
18 conclusion, Doctor, after seeing all the evidence on whether
19 the Sonos 2005 prior art system satisfies limitations 1.9 and
20 1.10 of claim 1 of the '885 patent?

21 **A.** Yeah, Sonos 2005 satisfies both limitations 1.9 and 1.10
22 of claim 1 of the '885 patent.

23 **MR. PAK:** Let's go to the next slide.

24 (Pause in proceedings.)

25 \\

1 **BY MR. PAK:**

2 **Q.** So, Doctor, we covered a lot of ground yesterday about how
3 the system works, but can you summarize for us the evidence
4 you've seen on the Sonos 2005 prior art system with respect to
5 these limitations?

6 **A.** Sure. So what we are talking about right now is on the
7 controller side, the CR100 or the desktop controller, the user
8 said they want to play a particular song and that in turn
9 invokes the play message. And the play message is received by
10 the coordinator, in this case it's zone player 102. It's on
11 bottom right-hand corner.

12 And if you remember from yesterday, the zone player has a
13 linked list, something called a group management service, which
14 stores all of the participants' identifiers. It then forwards
15 a message to allow play on zone players 104 and 106, the
16 participants, and then at that point all of the players play in
17 synchrony.

18 **Q.** Is that happening for the Party Mode group functionality
19 of the Sonos 2005 prior art system?

20 **A.** In this example I did it for the Party Mode group, that's
21 right.

22 **Q.** So just to summarize what I've heard, Doctor, there's a
23 group coordinator, that's the zone player on the bottom right;
24 he receives the play message from the controller, and then that
25 group coordinator coordinates with the other zone players in

1 order to allow music for all the zone players in the house
2 called Party Mode. Did I get that right?

3 **A.** That's correct.

4 **MR. PAK:** So let's turn to the next slide.

5 **BY MR. PAK:**

6 **Q.** So for the Sonos 2005 prior art system for claim 1 of the
7 '966 patent, which describes the same system from the
8 controller's perspective, what is your opinion on limitation
9 1.10, "While displaying the representation," 1.11, "Based on
10 the third request"?

11 **A.** So based on the same evidence and analysis I just
12 performed for claim limitations 1.9 and 1.10 of the '885
13 patent, claim limitations 1.10 and 1.11 of the '966 patent are
14 satisfied respectively.

15 **Q.** Okay. So we've gone through a lot with the Sonos 2005
16 prior art system, but there's still two limitations from each
17 claim that we still need to discuss; is that correct?

18 **A.** That's correct.

19 **MR. PAK:** Just to help the jury orient where we are,
20 if you go to the next slide.

21 **BY MR. PAK:**

22 **Q.** What is the difference based on all the evidence that you
23 saw in your expert analysis between the functionality that
24 existed in the Sonos 2005 prior art system and the claims at
25 issue for the '966 and '885 patents?

1 **A.** So we have everything in all of the limitations of claim 1
2 for both patents and we have two overlapping groups, for
3 example, the Party Mode and another group, but only the Party
4 Mode is saved for later. The second one is not saved for
5 later.

6 **Q.** That's the gap; is that right?

7 **A.** That is the difference between Sonos 2005 and what's
8 required by the claims.

9 **Q.** And how difficult would it be given all of the
10 functionality and code that was running in the Sonos 2005 prior
11 art system to make a modification to that system in order to
12 allow you to save that extra second group?

13 **THE COURT:** Can I quarrel a bit with the verb tense?

14 **MR. PAK:** Ah.

15 **THE COURT:** I think you should say "How difficult
16 would it have been" --

17 **MR. PAK:** Yes.

18 **THE COURT:** -- not "how difficult it would be now."

19 **MR. PAK:** Thank you, Your Honor.

20 **THE COURT:** Please rephrase your question.

21 **BY MR. PAK:**

22 **Q.** How difficult would it have been back in 2005 timeframe to
23 a person of ordinary skill in the art to make the modification
24 of saving one of the extra groups that was provided for in that
25 system?

1 **A.** It would be a trivial step in my view, and I can explain
2 why.

3 **Q.** Can you please explain?

4 **A.** Sure. It's -- we're talking about saving it for later and
5 if you remember yesterday, I said you need two things: One is
6 to continue to operate as you are now until you need it later;
7 and when you do need it later, you have to make sure it's
8 available.

9 So all you have to do is, if you remember yesterday, I
10 said that there is a channel that has to be shifted from the
11 local playlist to the external playlist, you just move the same
12 code in response to the play message instead of the set
13 AVTransport URI message; and then the same -- the same
14 information that was saved already in persistent memory on the
15 coordinator, the only difference you just keep instead of
16 discarding it when you no longer -- when you are done working
17 with a particular zone group just like you would for the Party
18 Mode. So these are two very simple steps.

19 **Q.** So given your and Dr. Almeroth's description of a person
20 of ordinary skill in the art, somebody who has an engineering
21 degree in the relevant field, two to four years of experience,
22 how difficult would it be for that person -- would it have been
23 for that person back in 2005 to make the simple modifications
24 that you were just describing?

25 **A.** In my opinion, it would have been a trivial exercise to

1 do. You are just shifting one code and not discarding the
2 identifiers. That's a very simple operation to do in the code.

3 **MR. PAK:** Let's go to the next slide.

4 **BY MR. PAK:**

5 **Q.** So you've already shown us this slide of what actually
6 existed in the Sonos 2005 prior art system; but for the jury to
7 understand, a person of ordinary skill in the art back in 2005
8 could make the modification -- would it have been obvious to
9 make the modification that you talked about to save the first
10 zone group here for later? Is that your testimony?

11 **A.** It is my testimony. The moment you just decide that
12 that's what you want to do, you can do it immediately.

13 **Q.** And if that obvious modification would have been made back
14 in 2005 by a person of ordinary skill in the art, what would be
15 the result in terms of the functionality that we're seeing here
16 with Party Mode group and first zone group?

17 **A.** Every claim limitation of both claim 1 of the '885 patent
18 and claim 1 of the '966 patent would have been satisfied.

19 **MR. PAK:** Let's go to the next slide.

20 **BY MR. PAK:**

21 **Q.** So now we're checking off all the boxes; is that correct?

22 **A.** Now we are checking off all of the boxes, that's right.

23 **Q.** So claim 1 of the '885 patent at the top you have "Sonos
24 2005 prior art system plus POSITA," P-O-S-I-T-A. That stands
25 for person of ordinary skill in the art; is that correct?

1 A. That's correct.

2 Q. So your testimony now is Sonos 2005 prior art system
3 combined with the knowledge and skills of a person of ordinary
4 skill in the art back in 2005 would have made this obvious
5 modification that you described to satisfy 1.7 and 1.8 of
6 claim 1 of the '885 patent; is that correct?

7 A. That's my opinion, yes.

8 Q. And then we'll come back to the corresponding element of
9 the claim 1 of the '966 patent, but I want to walk you through
10 some additional evidence that you've seen on just these two
11 limitations, 1.7 and 1.8.

12 Would that be okay with you?

13 A. Sure.

14 Q. You didn't stop there; right, Doctor? You looked at some
15 additional pieces of prior art?

16 A. I did, yes.

17 Q. So if you could turn to TX3698 in your binder.

18 A. (Witness examines document.)

19 Q. You should see the Crestron document.

20 A. I do.

21 Q. And is this a document that you reviewed and considered in
22 forming your opinions?

23 A. I did.

24 MR. PAK: I'd like to move, Your Honor, TX3698 into
25 evidence.

1 **MR. ROBERTS:** No objection.

2 **THE COURT:** Any objection?

3 **MR. ROBERTS:** Mr. Roberts. No objection.

4 **THE COURT:** Thank you. Received in evidence.

5 (Trial Exhibit 3698 received in evidence.)

6 **BY MR. PAK:**

7 **Q.** So let's turn to the next slide, TX3698 at page 67.

8 What is being described in this Crestron document?

9 **A.** So the Crestron document talks about having groups that
10 were previously saved -- they are called preset groups -- and
11 it gives one example of the Party Mode that we have heard about
12 several times, including in the patent and the prior art.

13 **Q.** And is Crestron prior art to these two patents in suit?

14 **A.** It is.

15 **Q.** Okay. Let's take another look at the next page.

16 So looking at TX3698 at lines 99 -- or pages 99 to 100,
17 can you summarize for us what you saw when you looked at the
18 Crestron prior art?

19 **A.** So here you can see up on top it talks about Party Mode
20 and then it has a list of groups that are available, these are
21 the preset groups, and it gives three examples: Party, dine
22 and read.

23 And as you can imagine, party is all of the speakers. The
24 other ones are overlapping groups so it discloses overlapping
25 groups, party and either dine or read.

1 And it does one more thing. It indicates in asterisk
2 which group is currently active, which means that the moment
3 it's Party Mode. So none of the speakers are available for
4 individual playback at the moment because they are all part of
5 Party Mode.

6 But if you were to shift it to dine, that would be a
7 smaller group of speakers, which means some of the speakers
8 would not be in the Party Mode and would be available to play
9 back individually.

10 So all of that information is clear when you read what
11 Crestron teaches.

12 **Q.** Now, this document also says at the top (as read):

13 "Party Mode and other room groups are preset settings
14 used to recall source room combinations."

15 Do you see that?

16 **A.** I do.

17 **Q.** And were you here when Mr. Lambourne testified and said
18 preset is one way or one solution for his claimed invention of
19 saving zone scenes for later use?

20 **A.** I do recall that testimony.

21 **Q.** And there's also disclosure here that says "Pressed --
22 "Press the soft button labeled 'Groups' to display the list of
23 groups" and it has names of those groups. Can the user change
24 the names of these groups to different things?

25 **A.** Yeah. In Crestron you can change the name to any theme

1 you want, and there are three examples over here: Party, dine,
2 and read.

3 Q. But you can make it any theme you wanted?

4 A. That's right.

5 Q. Okay.

6 MR. PAK: So let's go to the next slide.

7 BY MR. PAK:

8 Q. So we're back to claim 1 of the '966 patent that describes
9 the same system from the controller's perspective.

10 And, Doctor, were you able to check off all the boxes for
11 this Sonos 2005 combined with the knowledge and skill set of a
12 person of ordinary skill in the art for that claim as well?

13 A. Yeah. Based on the same -- based on the evidence and the
14 analysis I performed for claim limitations 1.7 and 1.8 of the
15 '885 patent, I was able -- it discloses claim limitations 1.7
16 and 1.8 of claim 1 of the -- sorry, let me make sure I get the
17 right -- 1.7 and 1.8 of claim 1 of the '966 patent.

18 And I think I misspoke. It's based on the evidence and
19 analysis I performed for claims 1.6 and 1.7 of
20 claim limitation 1 of the '885 patent.

21 Q. I know there are lots of limitations and claims; but in
22 summary, the evidence that you already showed us for claim 1 of
23 the '885 patent, do they support your understanding and opinion
24 that all of the elements of claim 1 of the '966 patent are also
25 satisfied on Sonos 2005 combined with the knowledge of a person

1 of ordinary skill in the art?

2 **A.** That's correct.

3 **Q.** Okay.

4 **MR. PAK:** Go to the next slide.

5 **THE COURT:** Let me ask a question before.

6 On this Crestron -- am I saying it right?

7 **MR. PAK:** Crestron, Your Honor.

8 **THE COURT:** Crestron, all right.

9 Was that before the examiner?

10 **THE WITNESS:** It was, sir.

11 **THE COURT:** All right. So have you explained why
12 you -- how did -- the examiner must have disagreed with you
13 then.

14 **THE WITNESS:** Well, my -- here I'm just applying the
15 general knowledge of a POSITA to the Sonos 2005 system, and
16 Sonos 2005 system was not available before the examiner. Only
17 user manuals were available, not the source code that shows the
18 messages, not the deposition testimony, the interrogatory
19 response. So he was -- in my opinion, the examiner was not in
20 a position to identify all of the limitations that are
21 disclosed in the system based on the user manual alone.

22 **THE COURT:** All right. Thank you for that.

23 **BY MR. PAK:**

24 **Q.** And just to follow-up on His Honor's question Crestron was
25 part of about 70,000-plus pages of material that was submitted

1 for the patent examiner; is that right?

2 **A.** In total, not including -- not -- for the two patents not
3 including the actual patent prior arts, which are several
4 hundred patents.

5 **Q.** Is that correct?

6 **A.** Yes.

7 **Q.** And was Crestron reference specifically discussed by the
8 examiner during prosecution?

9 **A.** Not to the best of my recollection, no. It was just
10 listed.

11 **MR. PAK:** So now let's turn to the next slide.

12 **BY MR. PAK:**

13 **Q.** And looking at claim 1 of the '885 patent, we're not going
14 to switch to the Sonos prior art forum postings that we've
15 heard a lot about in this case.

16 Are you with me?

17 **A.** I am.

18 **Q.** This time we're combining Sonos 2005 prior art systems
19 with the Sonos prior art forum postings about that same system;
20 is that correct?

21 **A.** That is correct.

22 **Q.** Okay. And just right off the bat, would it have been
23 obvious to those skilled in the art back in 2005 when they
24 looked at the Sonos 2005 system and also looked at the forum
25 postings about that system to make a combination in their mind?

1 A. Yeah, absolutely. The Sonos forum was posting of people
2 who were interested -- users, dealers who were interested in
3 the Sonos 2005 system, and they were making suggestions of how
4 to modify the Sonos 2005 system to improve it.

5 Q. So this time we're going to be focusing on we saw the
6 Sonos 2005 prior art system had everything but not 1.7 -- 1.7
7 and 1.8 limitations of claim 1 of the '885 patent; correct?

8 A. That's correct.

9 Q. So you're combining Sonos forums, which is prior art, to
10 address those limitations; is that correct?

11 A. That is correct.

12 Q. All right. So let's look at the evidence now that the
13 jury has already seen and see if we can piece it together.

14 MR. PAK: Let's go to the next slide DDX10.67.

15 BY MR. PAK:

16 Q. We're looking at one of the Sonos forum prior art postings
17 dated February 27, 2005; is that correct?

18 A. That is correct, yes.

19 Q. This is TX2424. This was the user boyG, theboyG, do you
20 recall that?

21 A. I do.

22 Q. And he says "Why can't I have a virtual zone, a zone
23 called downstairs, and I can group all my downstairs zones into
24 this? Then I don't have to keep manually linking/unlinking
25 multiple zones every time."

1 What does this disclosure in this piece of prior art tell
2 you about claim limitations 1.7 and 1.8?

3 **A.** So in here the person with the handle name theboyG is
4 complaining about the fact that every time they want to use a
5 group like downstairs, they have to link it manually; and every
6 time they want to go back to what is described in the claim as
7 the operating in standalone mode, they have to unlink it.

8 And so they are saying instead of pressing those three
9 buttons that I mentioned yesterday, they would like to just
10 press one button and still have the ability to play
11 individually on the speakers until you want to press that
12 button.

13 **MR. PAK:** Let's go to the next slide.

14 **BY MR. PAK:**

15 **Q.** So we're looking at two more pieces of prior art from the
16 Sonos forum posts, TX3930 at page 1, Jeff T.

17 What was Mr. T -- Jeff T saying about the problem and the
18 solution for these zone scenes?

19 **A.** So, Jeff T proposes two different things. The first one
20 is similar to theboyG. He proposes the morning mode, which
21 is -- would be a saved zone scene. And in addition to that, he
22 also says We: Have a Party Mode right now. I'd like to have
23 two party modes. One summer Party Mode, which would be just
24 like the current Party Mode in Sonos 2005, and then a new Party
25 Mode that excludes the deck speakers, the deck zone player,

1 because during the winter I don't need to play music on the
2 deck.

3 And so both of these are -- disclosures were part of
4 Jeff T.

5 Q. He had another Sonos prior art posting from the same
6 location, TX3928 at page 3. This one is from a user named
7 Floras Dad. Do you see that?

8 A. I do.

9 Q. This was dated September 27th, 2005; is that correct?

10 A. That is correct.

11 Q. And he says: Great idea. A macro-like scripter would
12 enable you to set groups of zones, associate different things
13 like volumes, and you could do these as dynamic presets based
14 on the Party Mode, which a spouse would love, like
15 entertaining, romantic dinner, ambiance, et cetera.

16 What was Mr. Floras Dad saying about the problem and
17 solution of the patents in suit?

18 A. So in this particular post Floras Dad is excited about the
19 idea for the two overlapping zone groups, and he says: Here is
20 how we can do it. We can have those presets, which means that
21 they are saved, and then we can write a macro-like scripter to
22 allow it to be used when we want so it can play individually
23 when we want it and then just activate all of the -- all of the
24 zones together when we want to play in the same scene. And
25 then in addition on the bottom, he's suggesting other themes,

1 like entertaining, romantic dinner, and so on.

2 Q. And is a macro-like scripter program instructions?

3 A. Yeah, they are program instructions at a high level.

4 Q. So if we go to -- and all of this is happening before
5 Mr. Lambourne says he came up with the ideas for the zone scene
6 patents; correct.

7 A. Yeah, it's all before the conception date of December 21,
8 2005.

9 MR. PAK: Let's go to the next slide.

10 Actually, the one just before that. Oh, actually, so
11 let's go to the next slide. This is fine.

12 BY DEFENSE COUNSEL:

13 Q. We're looking at TX3930 at 10 -- at 1.

14 Just to visualize what we're seeing in Jeff T's post, what
15 are you showing here with the figure?

16 A. So I showed you before the two overlapping groups, but in
17 this case the two overlapping groups are two Party Mode groups
18 proposed by Jeff T. The summer Party Mode is the original
19 Party Mode in Sonos 2005 and the winter Party Mode would
20 operate in exactly the same way but on a smaller group of zone
21 players.

22 Q. And, again, it's your view that these are overlapping zone
23 scenes; correct?

24 A. They are overlapping.

25 Q. And let's see what Mr. Lambourne, the inventor of these

1 patents, said about exactly this post. He was asked during
2 trial that the jury heard (as read):

3 "What Jeff T the user was describing in a publicly
4 available Sonos forum posting dated September 22nd, 2005,
5 is having multiple zone scenes that are saved for later;
6 correct?"

7 The answer he gave was: "Yes."

8 He was further asked (as read):

9 "And those zone scenes could be overlapping in that
10 they would share a speaker or a zone player; correct?"

11 Answer (as read):

12 "Yes. And in the summer and winter mode he is
13 describing, yes."

14 Is Mr. Lambourne's sworn testimony before this Court the
15 same as your opinions regarding this post?

16 **A.** Yeah. We completely agree on this issue.

17 **Q.** So we have Mr. Lambourne's testimony, we have your
18 independent review, and let's take a look at one more critical
19 piece of testimony from the inventor, Mr. Lambourne, which is
20 at page 541, 2 through 7. He was asked (as read):

21 "So Mr. Greenwood, in this prior public posting about
22 the Sonos 2005 system, was describing the same type of
23 problem that you were trying to solve with zone scenes and
24 suggesting macros, which is a similar solution to what you
25 had in mind for that functionality; correct?"

1 Answer (as read): "In broad terms, yes. As an outcome,
2 yes."

3 That was the sworn testimony that you heard from
4 Mr. Lambourne; correct?

5 **A.** That is correct.

6 **Q.** And based on your independent review of all of the
7 evidence, do you agree with Mr. Lambourne's testimony about the
8 Sonos prior art forums combined with Sonos 2005 system?

9 **A.** I do agree, yes.

10 **MR. PAK:** So turning to -- Mr. Fisher, if we could go
11 to DDX10.75. Actually, prior to that.

12 (Pause in proceedings.)

13 **MR. PAK:** Yeah.

14 **BY MR. PAK:**

15 **Q.** So looking at Sonos 2005 plus Sonos forums for now 1.78
16 limitation, 1.8 limitation of the '966 patent, what is your
17 opinion on whether that combination satisfies those limitations
18 as well as all the other limitations?

19 **A.** So, again, these two limitations are satisfied by the
20 combination of Sonos 2005 system together with Sonos forums
21 based on the evidence and analysis I performed for claim
22 limitations 1.6 and 1.7 of the '885 patent.

23 **Q.** To summarize, if we take the Sonos 2005 prior art system,
24 combine it with the prior art Sonos 2005 forum postings, what
25 is your opinion on whether the independent claims of the '966

1 patent and the '885 patent would have been obvious to those of
2 ordinary skill in the art?

3 **A.** I think that they would have definitely been obvious in my
4 mind based on the knowledge of person skill -- of a person of
5 ordinary skill in the art when you combine these two systems.

6 **Q.** Dr. Schonfeld, let's take a look at TX6513. This is the
7 Nourse patent.

8 **A.** (Witness examines document.) Yeah, I see it.

9 **Q.** Is this an earlier patent that you considered in forming
10 your opinions in this case?

11 **A.** It is, yes.

12 **MR. PAK:** Your Honor, I'd like to move TX6513 into
13 evidence.

14 **MR. ROBERTS:** Mr. Roberts. No objection.

15 **THE COURT:** Thank you. In evidence.

16 (Trial Exhibit 6513 received in evidence.)

17 **BY MR. PAK:**

18 **Q.** We're going to talk about Nourse briefly, but Sonos 2005
19 prior art system combined with another prior art, Nourse, would
20 that have rendered 1.7 and 1.8 limitations of claim 1 of the
21 '885 patent obvious to those skilled in the art?

22 **A.** In my opinion, it would.

23 **Q.** And let's look at this patent. So this was dated earlier,
24 September 2002, in terms of filing date; is that correct?

25 **A.** That's correct, yes.

1 Q. And this is a patent that belongs to somebody else other
2 than Sonos; correct?

3 A. It is, yes.

4 Q. And briefly what is the Nourse patent teaching about what
5 you can do back as part of the prior art?

6 A. So it's a general management system for general speaker
7 systems and any application such as public announcement system
8 or any other speaker system.

9 And if you go to the next slide, it teaches two -- at
10 least two things. First, up on top it teaches the fact that
11 each of the plurality of speakers can further be assigned up to
12 four group identifiers.

13 And I said something similar in a different context
14 yesterday, but it means if you -- one speaker belongs to four
15 different group identifiers, it means that all four of these
16 groups contain that speaker, which means that all four of these
17 groups are overlapping.

18 And, secondly, it teaches the fact that each speaker based
19 on the addresses can receive your new content to the speaker
20 and play individually or as a group depending on which address
21 is used, which means it's able to play and operate in
22 standalone mode and play back individually or play
23 synchronously as part of a group.

24 Q. And it says here that the addresses that you were using,
25 the address data that you would be using, is 16 bits. Do you

1 see that?

2 A. I do see it, yes.

3 Q. And then there's four group identifiers there for --

4 A. Yes.

5 Q. -- speaker?

6 So how difficult would it have been for somebody to take
7 these bits of information and store them for later use?

8 A. It's just a matter of storing in this case 64 bits. It's
9 a trivial operation. Most type of computing devices have in
10 the order of typically over 30 megabytes of data. Here we're
11 talking about 16 bit per address. It's a trivial thing to do.

12 Q. And megabytes is a million bites or a million times 8
13 bits; is that right?

14 A. That's right.

15 Q. And based on your review of the evidence on the Sonos 2005
16 prior art system, do they have that type of storage?

17 A. Absolutely. They have much more. They had to store all
18 of the code, thousands of titles. This would have been a
19 trivial change.

20 MR. PAK: Can we go to the next slide.

21 BY MR. PAK:

22 Q. So if we're looking at Sonos 2005 prior art system with
23 Nourse, what is your opinion on whether 1.7 and 1.8 of claim 1
24 of the '966 patent is rendered obvious?

25 A. In my opinion, claim 1.7 and 1.8 would have been satisfied

1 based on the combination of Sonos 2005 and Nourse based on the
2 evidence and analysis I presented for claim limitations 1.6 and
3 1.7 of claim 1 of the '885 patent.

4 **Q.** And why would it have been obvious to those skilled in the
5 art back in 2005 to combine Nourse with Sonos 2005 prior art
6 system?

7 **A.** It's addressing management of speaker systems. They're
8 both addressed to the same type of topic. They are solving
9 very similar problems of managing saving zone groups and making
10 them available and flexible to play individually or play later.

11 **Q.** Okay. We've gone through a lot of prior art, but I do
12 want to talk about one just more briefly. That's the
13 Squeezebox system that the jury has seen.

14 Did you analyze that system as well?

15 **A.** I did, yes.

16 **Q.** And this time we're just going to focus on claim element
17 1.7 and 1.8 of the '966 as well as the claim 1 of the '885
18 patent.

19 Are you with me?

20 **A.** Okay.

21 **Q.** So before we go through some of the evidence briefly,
22 Sonos 2005 prior art system combined with the Squeezebox prior
23 art system, would that combination satisfy all the limitations
24 of claim 1 of the '885 patent?

25 **A.** Yeah, that combination would have been obvious in

1 satisfying all -- those limitations; and, therefore, all of the
2 limitations of claim 1 of the '885 patent would have been
3 satisfied.

4 **Q.** And we saw some testimony earlier in the trial from
5 Mr. Lambourne. Do you recall that?

6 **A.** I do.

7 **Q.** And he says, this is at page 556 of the trial transcript
8 (as read):

9 "But here you were in November of 2003 trying to
10 think about how to design the Sonos 2005 prior art system
11 and you were listing a number of products here."

12 Do you see that?

13 **A.** I do.

14 **Q.** And he says (as read):

15 **"ANSWER:** Yes.

16 **"QUESTION:** One of the products you listed was Squeezebox;
17 correct?

18 **"ANSWER:** Yes."

19 Do you recall that?

20 **A.** I do.

21 **Q.** Do you recall his testimony that they also obtained two of
22 these Squeezebox systems and tested them for grouping
23 functionality in 2003?

24 **A.** Yeah. I remember them talking about how well they
25 performed and other people in an e-mail chain were chiming in.

1 Q. So what is your opinion hearing all of that and your
2 independent review on whether someone of ordinary skill in the
3 art back in 2005 would have combined what was known in the
4 Squeezebox system with the Sonos 2005 prior art system?

5 A. That they were competitors back then. They were trying to
6 do the same type of system. They would have looked into each
7 other's system and tried to see what the competitor is doing
8 and they did.

9 Q. So if we turn to -- actually turn to 3808 in your
10 manual -- in your binder. That should be the 3808, TX3808,
11 which is the Squeezebox manual.

12 A. (Witness examines document.) Yeah, I see it.

13 THE COURT: Is that already in evidence?

14 MR. PAK: Your Honor, I think I have to introduce this
15 one in.

16 And we can actually put it on the screen, Your Honor,
17 TX3808.

18 BY MR. PAK:

19 Q. Do you recognize this document?

20 A. I do.

21 Q. And is this something that you reviewed and relied upon in
22 forming your testimony?

23 A. Yes, it is.

24 MR. PAK: I'd like to move 3808 into evidence,
25 Your Honor.

1 **MR. ROBERTS:** No objection.

2 **THE COURT:** Received.

3 (Trial Exhibit 3808 received in evidence.)

4 **BY MR. PAK:**

5 **Q.** All right. What are we showing here from the manual for
6 the Squeezebox prior art system?

7 **A.** So you can see the Squeezebox up in the middle, and that's
8 a device that connects with wires. Just like the ZP100 from
9 Sonos it connects with wires to speakers. You can see it on
10 the bottom right.

11 And then in addition, it can connect either by ethernet
12 wire or wirelessly through Wi-Fi to a controller. In this case
13 the controller is just a computer. It could be a desktop
14 computer or laptop. And what is shown here is one Squeezebox,
15 but you can connect multiple Squeezeboxes.

16 **Q.** And in forming your opinions about the Squeezebox prior
17 art system, did you analyze some of the available source code
18 and test that product?

19 **A.** I did, yes.

20 **Q.** So briefly let's go through some of that analysis you did.
21 What is Softsqueeze?

22 **A.** So Softsqueeze is a an emulator that gives you a software
23 version of Squeezebox that you can run on a computer. It's
24 provided by the company -- by the same company that produces
25 Squeezebox, and it behaves just like the Squeezebox itself.

1 Q. If I look at the picture on the bottom, that's the picture
2 of the actual Squeezebox system or the product; correct?

3 A. That's correct. On bottom left, yeah.

4 Q. And what is shown on the right?

5 A. That's what you see on the screen when you run the
6 Softsqueeze. That is designed by the company to operate just
7 like the Squeezebox on the left.

8 Q. And Doctor, can you take a look at TX2508 in your binder?

9 A. (Witness examines document.)

10 MR. PAK: If I can have it on the screen briefly.
11 Mr. Fisher, if you can put up the next slide.

12 THE WITNESS: I see it.

13 BY MR. PAK:

14 Q. Is this a document that you considered and relied upon in
15 forming your opinions?

16 A. It is, yes.

17 MR. PAK: I'd like to move TX2508 into evidence.

18 MR. ROBERTS: No objection.

19 THE COURT: Thank you. In evidence.

20 (Trial Exhibit 2508 received in evidence.)

21 BY MR. PAK:

22 Q. And what are you showing us here in TX2508?

23 A. So this is a printout from a website called the
24 Wayback Machine. The Wayback Machine is an archive on the
25 internet that authenticates the way other websites were on

1 particular dates.

2 And this particular printout contains links to a source
3 code and to executable code, software, running -- that is
4 available for various components of Squeezebox. Squeezebox
5 believed in open source, which means it shares the code with
6 everybody. This way it allowed other people to modify the
7 code, change code. So they made it available back then to
8 anybody to play with and download.

9 Q. And which specific version of the SlimServer code --
10 source code did you look at and what was the date corresponding
11 to that?

12 A. So that would have been SlimServer V.5.3.1. It's on the
13 bottom over here in yellow. The date is October 1, 2004.

14 Q. And did you change any of that code, the actual open
15 source code, in performing your analysis?

16 A. No, I did not. I just downloaded as it was. I reviewed
17 the source code, and I ran the software itself.

18 Q. And is that source code prior art to these two patents?

19 A. That source code is prior art to these two patents, yes.

20 Q. And looking at TX3007 in your binder.

21 A. (Witness examines document.)

22 THE COURT: Zero zero seven?

23 MR. PAK: That's right, Your Honor, TX3007.

24 THE WITNESS: Yep.

25 \\\

1 **BY MR. PAK:**

2 **Q.** Did you rely on these set of printouts?

3 **A.** These are -- yeah. I believe, 3007 is the entire source
4 code in electronic form, and these printouts are excerpts
5 showing what some of the printouts of the source code that I
6 relied on looked like.

7 **MR. PAK:** And I'd like to move, Your Honor, TX3007
8 into evidence.

9 **MR. ROBERTS:** No objection.

10 **THE COURT:** Thank you. In evidence.

11 (Trial Exhibit 3007 received in evidence.) **July**

12 **BY MR. PAK:**

13 **Q.** And so you looked at -- you downloaded the source code,
14 you printed some of them out, and this is what we're looking
15 at; is that correct?

16 **A.** That is correct yes.

17 **Q.** And did you actually then do product testing in addition
18 to the source code?

19 **A.** I did, yes.

20 **Q.** And on this source code and based on the product testing,
21 is there a storage of the membership information in Squeezebox
22 of all the different groups?

23 **A.** Yeah, there is a storage in two places. One of them is on
24 the controller. It's actually stored on the disk or flash.
25 It's just a computer and it stores it in nonvolatile memory,

1 which is certainly persistent.

2 And in addition, on the Squeezebox itself there is the
3 same notion of coordinator and participant. It's called by
4 different names, but it's the same idea. And, again, the
5 coordinator includes all of the list -- it's an array in this
6 case -- of all of the other members of that particular group.

7 **MR. PAK:** And so turning to the next slide,
8 Mr. Fisher.

9 **BY MR. PAK:**

10 **Q.** So when you performed the testing of the Squeezebox and
11 the Softsqueeze player, what were you able to find in terms of
12 synchronization of the different groups?

13 **A.** Yeah, the Squeezebox system was designed to allow you to
14 play to individual Squeezebox players or to synchronize
15 multiple of them; and I was able to see the actual
16 synchronization tab allow to build the synchronization group,
17 and I actually played music in synchronized fashion from those
18 multiple different speakers.

19 **Q.** And just can you read into the record the user interface
20 screen that you saw when you tested the Squeezebox system?

21 **A.** Sure. It says (as read):

22 "Synchronize. The player can be synchronized with
23 other players enabling them to play the same music
24 simultaneously. Choose the players you would like to
25 synchronize with from the list of available

1 synchronization groups."

2 **MR. PAK:** And then if you turn to the next slide,
3 Mr. Fisher.

4 **BY MR. PAK:**

5 **Q.** So just help us understand what you were doing. Is this
6 an accurate depiction of the testing that you did without
7 modifying any of the source code for the Squeezebox system?

8 **A.** That's correct. It's -- I actually ran their software
9 directly, and I just simply ran it and created these two
10 overlapping groups.

11 **Q.** And are those two overlapping groups zone scenes as you
12 have been discussing in this case?

13 **A.** Yeah, they are zone scenes. Their name is Player 1 plus
14 Player 2, but they are zone groups that are previously saved
15 and provide the information about all of the grouping.

16 **Q.** Okay.

17 **MR. PAK:** If we turn to the next slide.

18 **BY MR. PAK:**

19 **Q.** What do we see here on this screen?

20 **A.** So I just showed you a visual, but I didn't perhaps
21 convince you that I really actually did it; and to show you
22 what happens on the controller, it has something that's known
23 as a preference file where it keeps a record of all of the
24 information that it built when you created the groups, and
25 it -- there's a portion up on top that has a few parameters

1 that I highlighted. One of them is the sync group ID, which
2 tells you what is the group number, and that number ends with
3 235 and it contains Player 1 and Player 3.

4 And on the bottom it's the same idea, but this time it's a
5 different group, different sync group ID ending in 355 in both
6 cases, and it contains different players, Player 1 and
7 Player 2. But as you can see Player 1, resides in both of the
8 groups; and, therefore, the picture I just showed you in the
9 previous slide depicts exactly what I just simply constructed
10 here.

11 **Q.** And so were you able to actually generate these test files
12 in the configuration file for the Squeezebox system without
13 changing any of the source code?

14 **A.** Yeah. The system itself generated this, and I just
15 grabbed that information from the preference file.

16 **Q.** So what we see here is Player 1, that's one speaker or
17 zone player, belonging to two different overlapping zone
18 scenes; is that correct?

19 **A.** That's correct.

20 **Q.** And I think you mentioned before with this, the Squeezebox
21 system, you could also change the name of the speakers; right?
22 You could go from Player 1 to upstairs and give it any other
23 name you wanted?

24 **A.** I believe that's correct.

25 **Q.** Now let's turn to the next slide.

1 A. Actually, that's correct, I did do it, yes.

2 Q. Okay. We're covering a lot of material.

3 So claim 1 of the '966 patent, which is the same system
4 written from the controller perspective, the combination of
5 Sonos 2005 combined with Squeezebox, were you able to check off
6 all the boxes including limitation 1.7 and 1.8?

7 A. I was. Again, based on the evidence of claim limitations
8 1.6 and 1.7 of claim 1 of the '885 patent, these two
9 limitations are satisfied as well by this combination.

10 Q. Now, there's some dependent claims for the '966 patent;
11 correct?

12 A. There are, yes.

13 Q. So we're going to briefly talk about a few of those.

14 MR. PAK: If you go to the next slide.

15 BY MR. PAK:

16 Q. Can you just explain briefly what claim 2 which depends
17 from claim 1 of the '966 patent requires?

18 A. Sure. In claim 1 of the '966 patent, if you remember the
19 last step was to invoke one of the zone scenes, the first zone
20 scene, and what this requires is that you have another message
21 which actually tears down that particular group and invokes the
22 second zone scene. And so that's what's required by the claim.

23 Q. And based on -- let me ask you. Are the limitations, the
24 additional limitations, of claim 2 satisfied by the prior art
25 Sonos 2005 system?

1 A. Yes. Based on the evidence I presented for claim 1 of the
2 '966 patent, it satisfies this dependent limitation as well.

3 Q. Can you briefly summarize why?

4 A. So if you look at the next slide, you recall I talked
5 about the play message arriving for one of the zone scenes or
6 one of the zone groups, and this could apply to any message.
7 If you were to apply it in the next slide, you will see you can
8 do the same thing to the Party Mode as I spoke about earlier,
9 and that would do exactly what's required. It would tear down
10 the previous zone group and begin to activate in synchrony in
11 this particular Party Mode in this case.

12 Q. So we checked off claim 2.

13 Looking at claims 3 and 4 of the '966 patent, what do they
14 add that's not covered by claim 2?

15 A. Claim 3 and 4 requires that the storage be done somewhere
16 outside of the controller and, for example, the zone player
17 would satisfy this.

18 Q. And were you able to find those elements of claim 3 and 4
19 in the prior art Sonos 2005 system?

20 A. I was.

21 Q. And where did you find the storage of the membership
22 information for a group in the Sonos 2005 prior art system?

23 A. So based on the same information, the same evidence and
24 analysis I did for claim 1 of the '966 patent, I spoke about
25 the fact that you have a linked list, that group management

1 service in the coordinator, that's where the storage takes
2 place, and the coordinator is a zone player.

3 Q. So, for example, if we look at this slide, any one of
4 these zone players on the left could be one of those group
5 coordinators; correct?

6 A. That is correct, yes.

7 Q. And that would be true for the Party Mode as well;
8 correct?

9 A. That is correct.

10 Q. So we've checked off 2, 3, 4.

11 Claim 6 what does that add?

12 A. This requires that the two groups be such that one is not
13 a part of the other one. So each one has at least one zone
14 player that's not in the second group.

15 Q. And --

16 A. Or not in the other group, to be more precise.

17 Q. And did you find claim 6 to be present in the Sonos 2005
18 prior art system?

19 A. Yes. Based on the same evidence I presented for claim 1
20 of the '966 patent, this is satisfied as well.

21 Q. So if we look at this slide, what's shown here about the
22 Sonos 2005 prior art system?

23 A. So I showed how to build one zone group, which consisted
24 of two zone players; but you could do the same thing again and
25 choose different two that are overlapping, in which case this

1 is the picture that would correspond to two zone groups that
2 are -- you are able to create in the Sonos 2005 system. You
3 just repeat. If you remember, I had the group in blue. You
4 just do it again but for a different group.

5 **Q.** And is this related to what the Sonos prior art forum
6 posters were saying about how having different Party Modes or
7 different zone scenes?

8 **A.** Yeah. It would -- you could do this even without that.
9 You could do it just on a regular Sonos 2005 system; but if you
10 also wanted to meet claim limitations 1.7 and 1.8 of the '885,
11 you would have to do this extra step.

12 **Q.** Okay. We're down to the last claim.

13 Claim 8 of the '966 patent, did you find that claim
14 element to be satisfied in the Sonos 2005 prior art system?

15 **A.** I did, based on the same evidence and analysis of claim 1
16 of the '966 patent.

17 **Q.** And briefly can you summarize the evidence that we've
18 already seen that satisfies this element?

19 **A.** Yeah. This particular claim limitation requires that you
20 have user inputs for both the first request when you first form
21 the first group by linking and then do it again for the second
22 group, and that's depicted on the left-hand side; and then
23 ultimately that you do the third request with user input, which
24 means you invoke, you press the "Play" button. This shows
25 "Okay" but in reality there is a button underneath the hand

1 that's the "Play" button that could be based on user input, and
2 this claim is satisfied.

3 Q. Okay. We're now done with your prior art opinions. I
4 want to briefly touch on a few issues that also relate to
5 damages in this case.

6 But, sir, you understand that if the jury were to find
7 that these patents are invalid, then there is no infringement
8 and no damages; correct?

9 A. That is correct.

10 Q. All right.

11 MR. PAK: So let's turn to the next slide.

12 BY MR. PAK:

13 Q. Do you remember I believe this was Mr. Lambourne talking
14 about this 2020 article from CNN? Do you see that?

15 A. I do recall that.

16 Q. This is TX6780. When you look at this article, does it
17 say anything about overlapping zone scenes?

18 A. No.

19 Q. And it says (as read): "Save a group of speakers as a
20 preset."

21 Do you see that?

22 A. I do.

23 Q. Have we seen that idea somewhere in the prior art?

24 A. Yeah. I kept on referring to this notion of saving zone
25 scene repeatedly, and we saw it in at least three or four, if

1 not more, references.

2 Q. So is this CNN article talking at all or giving any praise
3 about the specific claims in this case which require
4 overlapping zone scenes?

5 A. No. It's unrelated to the particular claims in this case.

6 Q. Okay. And let's look at --

7 MR. PAK: Go back, Mr. Fisher.

8 BY MR. PAK:

9 Q. You were asked to provide some opinions, technical
10 opinions, about an agreement, the patent purchase agreement,
11 between Google and Outland Research, which is TX6016; is that
12 correct?

13 A. That's correct.

14 Q. And did you, in fact, analyze this purchase agreement and
15 some of the patents that are covered by this agreement?

16 A. I did, yes.

17 Q. And what's your opinion -- and we're going to talk about
18 some of the specification opinions. What is your general
19 opinion on whether at least some of the patents covered in this
20 purchase agreement are technologically comparable to the two
21 zone scene patents that we're discussing?

22 A. Yeah, in my opinion at least some of the patents in this
23 portfolio are technologically comparable to the claims in this
24 case.

25 Q. And let's look at one example of that, and if you look at

1 TX2625.

2 We can put it on the screen just for a brief moment.

3 TX2675, United States Patent 7603414, did you rely on this
4 document in forming your opinions about the purchase agreement?

5 **A.** I did, yes.

6 **MR. PAK:** All right. Your Honor, I'd like to move
7 TX2675 into evidence.

8 **MR. ROBERTS:** No objection.

9 **THE COURT:** 2675.

10 (Trial Exhibit 2625 received in evidence.)

11 **BY MR. PAK:**

12 **Q.** All right. So this is one of the patents that Google
13 purchased from Outland Research; is that correct?

14 **A.** It is, yes.

15 **Q.** And can you tell us the relevant aspects of this patent
16 that led to your conclusion that at least some of the patents
17 covered by the Outland purchase agreement is technologically
18 comparable?

19 **A.** Sure. So at least this patent talks about the fact that
20 you have multiple speakers in a voice communication and that
21 you want to provide background sound or music to all of them
22 simultaneously in synchrony, and so it teaches how to provide
23 that background music or sound to all of the speakers. It
24 teaches synchronization. It actually goes into the timing
25 information. It goes further into synchronization signals, all

1 of the things that are required in order to allow for
2 synchronization.

3 **Q.** Is synchronization one of the claimed elements of the two
4 patents in suit for group operation?

5 **A.** Yeah. That's the end result of both patents.

6 **Q.** Okay. Did you find some other patents in the purchase
7 agreement between Google and Outland that has similar
8 disclosures in forming your opinions on technological
9 comparability?

10 **A.** Yeah. Some of them were similar, others were a little bit
11 weaker, but there were at least four that were in the general
12 area that I would view as technical comparability.

13 **MR. PAK:** Thank you, Your Honor. I would like to pass
14 the witness.

15 **THE COURT:** All right. Can we get started on the
16 cross-examination or does anyone need a break right now?

17 (No response.)

18 **THE COURT:** Okay. We'll get started on the cross.
19 Please begin.

20 **MR. ROBERTS:** Thank you, Your Honor.
21 Permission to approach the witness and give him --

22 **THE COURT:** Sure. Go ahead.

23 **MR. ROBERTS:** Thank you.

24 (Pause in proceedings.)

25 \\\

CROSS-EXAMINATION

BY MR. ROBERTS:

Q. Let me know when you're ready.

A. I am.

Q. Good morning. My name's Clem Roberts. I'm going to do your cross-examination today.

Dr. Schonfeld, you read at the beginning of this morning paragraph 108 from your expert report; correct.

A. I did, yes.

Q. And that paragraph relates to the '966 patent that's in the '966 section of your report?

A. I am -- I would have to go back and check.

Q. Okay. Why don't you look very quickly.

A. (Witness examines document.)

Q. If you look, the '966 section begins on page 54 at paragraph 98.

A. (Witness examines document.) I believe that is correct. I believe the similar sentence would appear in the first section for '885, but that was an example.

Q. Okay. That wasn't my question. My question was just: This paragraph is about the '966; correct?

A. I believe so.

Q. You have been deposed in roughly 45 or 50 patent cases; correct, sir?

A. That sounds about right.

1 Q. And you've been an expert witness for Google before?

2 A. I have, yes.

3 Q. Your rough estimate is that you've been an expert witness
4 for Google seven or eight times?

5 A. Not in trial but in cases involving Google, that sounds
6 right.

7 Q. More than 50 percent of your annual income comes from
8 being an expert witness or litigation consultant; correct?

9 A. That's absolutely right.

10 Q. The claims of both of the patents in this case call for
11 the zone player to remain in standalone mode after it has been
12 added to a group; correct?

13 A. After it has been added before it was invoked, that's
14 right.

15 Q. Your view is that to operate in standalone mode, you
16 actually have to be playing audio individually; correct?

17 A. My view is that to operate in standalone mode in which you
18 play -- the zone player plays back media individually, you
19 actually have to test it by playing audio, that's right.

20 MR. ROBERTS: Let's -- let's roll the tape from
21 Sonos -- from Mr. Dr. Schonfeld's deposition testimony
22 February 3rd, 2023, 44:18 through 45:12, please. Roll, please.

23 MR. JAY: Video?

24 MR. ROBERTS: Video, please, yes. Thank you, Mr. Jay.

25 (Video was played but not reported.)

1 **BY MR. ROBERTS:**

2 **Q.** And yesterday, sir, you testified that operating in
3 standalone mode in which the zone player is configured to play
4 back media individually, that phrase means you are actually
5 playing audio, you hear it; correct?

6 **A.** That's right.

7 **Q.** And you testified that operating in standalone mode is the
8 process of continuously waiting for the invocation while the
9 individual speaker is playing audio; correct?

10 **A.** I think I talked about it in the context of the entire
11 claim while applied to the other limitations, but generally
12 correct.

13 **Q.** But, sir, a player can be in standalone mode even if it's
14 not playing audio; correct?

15 **A.** If you just take standalone mode by itself and don't look
16 at it in the context of the entire claim limitation of
17 operating in standalone mode in which the zone player is
18 configured to play back media individually, if you just take
19 the phrase standalone mode, I agree.

20 **Q.** To put it differently, sir, it's possible for a player to
21 be in standalone mode when it's not playing audio; right?

22 **A.** Yeah. As I -- as I said, that would not be a test for the
23 limitation; but if you just focus on standalone mode by itself,
24 perhaps, yes, I agree with that.

25 **Q.** Okay. And it's not your understanding in order to meet

1 the standalone mode, the zone player has to be playing audio;
2 right?

3 **A.** I would disagree with that.

4 **MR. ROBERTS:** Let's play the Schonfeld deposition
5 transcript from August 31st at 49:12 through 16.

6 (Video was played but not reported.)

7 **BY MR. ROBERTS:**

8 **Q.** When the claim says that the player is, quote, "configured
9 to play back audio individually," sir, that means the player is
10 not configured to play as part of the group; correct?

11 **A.** No. That -- that means in that context that to test if
12 the apparatus satisfies the claim, you actually have to run a
13 test. You have to play audio and see if it still plays
14 individually. Once you have that and you pass that test, then
15 you can either play or not play, but you actually have to play
16 audio when you do the test.

17 **MR. ROBERTS:** Let's play Dr. Schonfeld's August 31st,
18 2022, deposition at 51:4 through 8.

19 (Video was played but not reported.)

20 **BY MR. ROBERTS:**

21 **Q.** Now, the statements I've been playing here, sir, have been
22 from your August 31st, 2022, deposition; correct?

23 **A.** There have been part of them, but you can play page 53
24 from the same deposition.

25 **Q.** Okay. Your --

1 **A.** 52.

2 **Q.** In the new or redesigned versions of Google speaker
3 products, Google added a StopCurrentApp function to the code;
4 correct?

5 **A.** That's correct, yes.

6 **Q.** You were in the courtroom the other day when Mr. MacKay
7 testified; correct?

8 **A.** I was, yes.

9 **MR. ROBERTS:** Can we put up Mr. MacKay's testimony
10 from 1282, lines 2 through 5?

11 **THE COURT:** Now, can I -- I'm going to allow you to do
12 this, but be aware that on cross-examination he is not limited
13 to his report; and if you introduce things that MacKay said, he
14 is free to pick it up and run with it. So be aware of that
15 ground rule.

16 **MR. ROBERTS:** I'm asking a very limited question about
17 this.

18 **THE COURT:** Okay, fine. Just I'm worried about where
19 you might be headed.

20 **MR. ROBERTS:** Yep.

21 **BY MR. ROBERTS:**

22 **Q.** Sir, you were there when Mr. MacKay confirmed that he did
23 not make any changes to the Google Home app that runs on the
24 controller; correct?

25 **A.** That's right. That's correct.

1 Q. Okay.

2 MR. ROBERTS: You can take that down.

3 BY MR. ROBERTS:

4 Q. So the Android devices loaded with the Google Home app is
5 the same device with the same software both before and after
6 the redesign; correct?

7 A. I cannot go there because it just means that Mr. MacKay
8 did not make changes. I'm not sure if anybody else made
9 changes.

10 Q. Okay. So you are not aware of any changes between the
11 Android device before and after the redesign?

12 A. I'm not aware of any particular changes, but it's a
13 different question from the one you asked me.

14 Q. Okay. Sir, after the StopCurrentApp function is received
15 or let's say after it's called by the player, the player will
16 stop playing music; correct?

17 A. Well, it will actually tear down the app as I mentioned
18 yesterday.

19 Q. Sir, that's -- just please give me an answer to my
20 question. This is a yes-or-no question.

21 The player will stop playing music; correct?

22 A. It will certainly stop playing music.

23 Q. Even after it stops playing music, it's powered on;
24 correct?

25 A. Unless you power it off.

1 Q. The operating system is still running?

2 A. Yeah, unless you power it off.

3 Q. Just stop playing -- the StopCurrentApp function is called
4 and after that, the app is still -- the -- strike that.

5 After that, the device is still connected to the network;
6 correct, sir?

7 A. With the same assumption, yes.

8 Q. The device can still receive commands?

9 A. With the same assumption assuming that you have a working
10 internet and it's connected to other devices.

11 Q. Yeah, assume nothing else has changed. It can respond to
12 those commands; correct?

13 A. Again, it requires a lot of assumptions; but if everything
14 is still connected and it's allowed to interact with other
15 devices, yes.

16 Q. So -- and one of the things we saw was that it can respond
17 to commands by adjusting the volume of the device; correct?

18 A. It can adjust the volume of the device, but not the volume
19 of -- essentially, it cannot change the music volume because
20 there is no app.

21 MR. ROBERTS: Move to strike the second part.

22 BY MR. ROBERTS:

23 Q. Sir --

24 THE COURT: No. That's within the scope of your
25 question.

1 BY MR. ROBERTS:

2 Q. In particular, sir, it will respond to a volume change by
3 issuing an audible boop; correct?

4 A. That's what Mr. MacKay said; but we are talking about just
5 like in the old stereo receiver system, you can turn the volume
6 nob off even when it's turned off and then when you turn it
7 back on, the volume would be higher.

8 Q. Sir, it will receive -- it will make an audible boop;
9 correct?

10 A. I don't remember the boop, but I heard Mr. MacKay talk
11 about the boop.

12 Q. Okay. The boop is a piece of audio; correct?

13 A. It's a sound made, but it's not the music because there is
14 no app. It's part of the operating system.

15 Q. Sir, it's audio; correct? It's audible? You can hear it?

16 A. Yes. A boop is audible. I don't remember the boop,
17 frankly, but I'm just relying on Mr. MacKay's testimony.

18 Q. Now, sir, after the stop command but before there's a
19 command to play a particular group, the speaker at that point
20 in time is not coordinating to play back in synchrony; correct?

21 A. It's not coordinating to play back in synchrony or in
22 standalone or in any mode. It's just waiting.

23 Q. Sir, I'd ask you to answer my question. My question was
24 very narrow. It is not coordinating to play back in synchrony;
25 correct?

1 A. Yeah. It was part of my previous response, I agree.

2 Q. Sir, my phone is configured to receive calls even if I'm
3 not talking on it; correct?

4 A. I mean, I'm not sure what you mean about configured in
5 that context. Every -- when we talk about the word configured,
6 it can mean a lot of different things; and when I talk to my
7 family about my phone, I don't talk about what it's configured
8 to be in that context.

9 Q. Sir, the cable-ready TV I bought at Best Buy is configured
10 to accept cable even when it's in the box in the store;
11 correct?

12 A. Again, the word "configured" can be used to mean a lot of
13 different things in a lot of different contexts, and this is
14 one of them. If that's your -- I understand what you're trying
15 to say with the statement, but I'm not sure -- I'm not sure how
16 it's relevant.

17 Q. Let me give an easier one.

18 Sir, my car is configured to drive on U.S. roads even when
19 it's sitting in my garage; correct?

20 A. In the context of the way the word "configured" is used in
21 the claims, in my opinion that would be inappropriate. In the
22 context of the way you described it, I guess you could say it.
23 Most people would not talk in that way.

24 Q. The first limitation -- let's talk about storage.

25 The first limitation of claim 1 of the '966 patent calls

1 for a nontransitory computer-readable medium and program
2 instructions stored on the nontransitory computer-readable
3 medium that when executed by the one or more processors caused
4 the computing device to perform certain functions; correct?

5 **A.** Just one clarification I missed at the beginning. Are you
6 talking about the '966 patent?

7 **Q.** Yes, sir.

8 **A.** Okay. I'm doing it from memory, but I think that sounds
9 right.

10 **Q.** Okay. A nontransitory computer-readable medium is a type
11 of storage; correct?

12 **A.** A nontransitory computer-readable medium is legal
13 terminology for describing some type of memory but doesn't have
14 to be storage.

15 **Q.** Okay. It's some type of memory or storage, but it gives
16 you information about how the information is being retained;
17 correct?

18 **A.** That's correct. It's a legal term so I would leave it to
19 the Court to make the determination; but my understanding, it
20 could even apply to temporary memory.

21 **Q.** Okay.

22 **MR. ROBERTS:** Let's put up the '966 patent, claim 1,
23 and I'm looking specifically at the sixth limitation if we can,
24 please, Mr. Jay.

25 (Pause in proceedings.)

1 **BY MR. ROBERTS:**

2 **Q.** Sir, I have a blowup of part of the sixth limitation of
3 claim 1 of the '966, and I want to focus on the little 3 that
4 talks about causing storage of the second zone scene. Do you
5 see that?

6 **A.** I do see that, yes.

7 **Q.** In this instance, the claim does not call out a particular
8 kind of storage; correct?

9 **A.** No. It just talks about storage; but from this context,
10 as I said, I viewed this as persistent storage but it does not
11 spell it out in the claim.

12 **Q.** The claim doesn't say that the zone scene is stored in
13 nonvolatile memory; correct?

14 **A.** No, yeah, it does not. Nonvolatile memory is one way you
15 can do storage, but you don't have to to meet this claim.

16 **Q.** It doesn't say that the zone scene is stored in a single
17 location; correct?

18 **A.** Well, it says storage of the zone scene; and as I
19 testified yesterday, it means that you are talking about some
20 information that has to be stored. So it has to be stored in
21 some kind of a storage mechanism; and my view is that that's
22 not talking about distributing the storage across dozens of
23 devices, so I -- I don't completely agree with your
24 characterization.

25 **Q.** Well, sir, you have heard of the term "distributed

1 storage"; correct?

2 **A.** Yes, but it's -- there is a difference between distributed
3 storage and just simply looking at a bunch of stored elements
4 scattered over many different devices and viewing them as a
5 single storage. They are two different things.

6 **Q.** Sir, it's common in computer science to break information
7 up into pieces and store those different pieces in different
8 locations. That's a common technique?

9 **A.** That's a technique, I agree with you, but it is a
10 technique to store and is just designed for full tolerance to
11 make sure that the data is secure. It's not what we are
12 talking about here.

13 **Q.** The claim just says "causing storage"; correct?

14 **A.** Causing storage of the second zone scene and the first
15 zone scene.

16 **Q.** Let me show you figure 2A from the '966 patent, if I may?

17 **MR. ROBERTS:** Mr. Jay, please.

18 Thank you.

19 **BY MR. ROBERTS:**

20 **Q.** Sir, are you familiar with 2A from the '966?

21 **A.** I am, yes.

22 **Q.** Okay. And this figure shows an exemplary functional block
23 diagram of a player in accordance with the present invention;
24 correct?

25 **A.** That's correct.

1 Q. Okay. It has both a memory that's labeled 206 and a
2 module that's labeled 212?

3 A. That's correct.

4 Q. And, sir, you would agree that for a person of ordinary
5 skill in the art, memory is usually volatile memory; correct?

6 A. Memory is typically volatile memory to -- in order to have
7 a description within the specification that corresponds to
8 storage, in this case memory would have to be broader than
9 just -- just that type of memory unless it's persistently
10 stored.

11 Q. So it says in the patent that memory 206 is used to save
12 one or more saved zone scene -- strike that. Let me rephrase
13 that.

14 Memory 206 is used to save one or more saved zone
15 configuration files; correct?

16 A. I don't have the --

17 Q. That's fine. We can show it. It's the '966 --

18 A. Let me just --

19 Q. -- column 5, 65 through 68.

20 A. Let me just find your binder. Just one second.

21 MR. ROBERTS: Maybe, Mr. Jay, you can put it up for
22 me.

23 THE WITNESS: (Witness examines document.) What is
24 the TX number?

25 \\

1 **BY MR. ROBERTS:**

2 **Q.** It's TX0001.

3 **A.** Okay.

4 **Q.** I have it on the screen, sir.

5 **A.** Okay.

6 (Witness examines document.) Yeah, I see that.

7 **Q.** Okay. So it expressly calls out saving the zone scene
8 configuration files in the memory?

9 **A.** That's correct, but --

10 **Q.** And a person of ordinary skill in the art would understand
11 that memory can include nonvolatile memory?

12 **A.** That's right. As long as its persistent, you can store
13 persistently nonvolatile memory.

14 **THE COURT:** All right. Are we getting close to a
15 breaking point?

16 **MR. ROBERTS:** Yeah. I think I have about two more
17 questions on storage.

18 **THE COURT:** All right. Please continue.

19 **BY MR. ROBERTS:**

20 **Q.** Sir, the patents also say that in one embodiment, module
21 212 is used to save a zone scene; correct?

22 **A.** Can you --

23 **Q.** Yeah, I'm happy to find that.

24 **MR. ROBERTS:** Mr. Jay, could you put it up? This is
25 6, 22 through 25.

1 **BY MR. ROBERTS:**

2 **Q.** I have it on your screen if that's easier for you.

3 **A.** (Witness examines document.) Yep, I see that.

4 **Q.** So module 212 may be implemented as a combination of
5 hardware and software; correct?

6 **A.** That's correct.

7 **Q.** And module 212 doesn't say that it's limited to
8 nonvolatile memory; correct?

9 **A.** It doesn't say, but we already have the memory; and to the
10 extent memory -- the memory we just spoke about in Figure 2A is
11 distinct from this module, typically in computer systems you
12 have RAM and then you have something like flash.

13 **Q.** And in one embodiment module 212 is used to save a scene;
14 correct?

15 **A.** That's correct.

16 **Q.** So taken together, the patent teaches that it could be
17 saved either in volatile or nonvolatile memory; correct?

18 **A.** The saving can be done even temporarily, I agree with
19 that. The storage has to be done persistently, and I agree
20 that it can be done in volatile or nonvolatile memory.

21 **MR. ROBERTS:** Why don't we take our break.

22 **THE COURT:** Thank you.

23 All right. Please remember the admonition. We'll see you
24 all back here soon.

25 **THE CLERK:** All rise for the jury.

1 (Proceedings were heard outside the presence of the jury:)

2 **THE COURT:** All right. Please have a seat.

3 Any issues for the judge?

4 **MR. PAK:** Not from Google, Your Honor.

5 **MR. ROBERTS:** Not at this time.

6 **THE COURT:** Okay. We'll all take our break as well.

7 Thanks.

8 **THE CLERK:** Court is in recess.

9 (Recess taken at 9:07 a.m.)

10 (Proceedings resumed at 9:25 a.m.)

11 (Proceedings were heard out of the presence of the jury:)

12 **THE CLERK:** Please remain seated. Please come to
13 order.

14 **THE COURT:** Can I bring in the jury now?

15 **MR. ROBERTS:** Okay by me, Your Honor.

16 **THE COURT:** All right. You might as well stand up.
17 They're going to come in.

18 (Pause in proceedings.)

19 **THE CLERK:** All rise for the jury.

20 (Proceedings were heard in the presence of the jury:)

21 **THE COURT:** Be seated, please.

22 Okay. All set over there? Let's -- all ready?

23 Great. Go ahead, Counsel.

24 **BY MR. ROBERTS:**

25 **Q.** Dr. Schonfeld, welcome back.

1 A. Thank you.

2 Q. I would like to turn to your invalidity opinion. Okay?

3 A. Sure, absolutely.

4 Q. Sir, it is your understanding that there is a presumption
5 that especially if the examiner checked off a particular
6 reference on an IDS, the examiner fully considered it in their
7 conclusion when they granted the allowance; correct?

8 A. Yeah. I'm not an attorney, but that's my understanding.

9 Q. With respect to the Sonos system, your opinion is based
10 only on obviousness; correct?

11 A. Absolutely.

12 Q. You are not claiming that Sonos anticipated its own
13 patent?

14 A. I am not.

15 Q. You have inspected Sonos players that have been made
16 available for inspection in this case; correct?

17 A. I have, yes.

18 Q. You did a physical analysis of the products; correct?

19 A. That is correct.

20 Q. But, sir, you did no testing of the actual operation of
21 the Sonos prior art; correct?

22 A. Well, I tried to, but I couldn't because Sonos didn't
23 provide a working system.

24 Q. Sir, you did no testing of it; correct?

25 A. Yeah, as a result, that's correct.

1 Q. Okay. You didn't go out and get a working system of it
2 yourself, did you?

3 A. I asked for it, but I was told Sonos could not do it and
4 so I couldn't do it either.

5 Q. That's what your attorneys told you?

6 A. That's my understanding of what I was informed about,
7 yeah.

8 Q. In the Sonos prior art system, a zone group is activated
9 for synchronous playback at the time of creation; correct?

10 A. Correct, with one caveat. Only if the coordinator is
11 actually playing music because you heard Mr. Millington and
12 Mr. Lambourne talk about the fact that if the coordinator is
13 not playing music, that would not be correct.

14 MR. ROBERTS: Let's play Dr. Schonfeld's deposition
15 transcript at 174:21 through 25.

16 (Video was played but not reported.)

17 BY MR. ROBERTS:

18 Q. In other words, sir, the formation of the group and the
19 invocation are contemporaneous in the Sonos prior art system;
20 correct?

21 A. When the coordinator is playing music, that would be
22 correct.

23 MR. ROBERTS: Let's play 175, 1 through 10, from
24 August 31st.

25 (Video was played but not reported.)

1 **BY MR. ROBERTS:**

2 **Q.** And leaving aside Party Mode for one moment, the actual
3 Sonos prior art system didn't have the ability to save regular
4 zone scenes; correct?

5 **A.** That's absolutely correct. That's what I said on direct.

6 **Q.** The user had to pick the zones to go into a regular zone
7 scene each time he or she wanted to play music from that group?

8 **A.** That's correct.

9 **Q.** Now, you have offered the opinion that Party Mode in the
10 Sonos 2005 system is a zone scene; correct?

11 **A.** It's not just me. Mr. Lambourne as well, but I agree with
12 him.

13 **Q.** Sir, you agree that in the actual Sonos prior art system,
14 whether it's a normal zone scene or Party Mode, each indication
15 that a zone player has been added to a zone scene comes with
16 the invocation of that scene; correct?

17 **A.** Not -- not accurate.

18 **MR. ROBERTS:** Let's play your deposition transcript
19 from August 31st, 185:17 to 186:10, please.

20 (Video was played but not reported.)

21 **BY MR. ROBERTS:**

22 **Q.** So, again, sir, each invocation comes with the indication
23 it corresponds to; correct?

24 **A.** No. My testimony is accurate in the deposition and today.

25 **Q.** Okay. Now, you have testified that Sonos' prior art

1 system met limitations 1.9 and 1.10 of the '966 patent;
2 correct?

3 **A.** Oh, let me see.

4 (Witness examines document.) Could you repeat the
5 question, please?

6 **Q.** Yes, sir.

7 You testified on direct, I think it was the very end of
8 yesterday and beginning of today, that Sonos' prior art, its
9 2005 system, satisfied limitations 1.9 and 1.10 of the '966
10 patent?

11 **A.** That is correct.

12 **Q.** Sir, those two limitations have additional claim
13 requirements that are not found in any limitations of the '885
14 patent; correct?

15 Let's put it up. We'll help you.

16 **A.** That's completely --

17 **MR. ROBERTS:** TX001 and let's put up claim limitation
18 1.9 please.

19 **BY MR. ROBERTS:**

20 **Q.** So, sir, this is from the '966 patent, and this limitation
21 calls for displaying a representation of the first zone scene
22 and a representation of the second zone scene; correct?

23 **A.** That's correct.

24 **Q.** Limitations 1.6 and 1.7 of the '885 do not call for
25 displaying a representation of the first zone scene and a

1 representation of the second zone scene; correct?

2 **A.** No. Only the analysis I did with limitations does not.

3 **Q.** Sir, can you answer my question?

4 Limitations 1.6 and 1.7 of the '885 patent don't contain
5 analogous language to the one that's highlighted on your
6 screen; correct?

7 **A.** That's correct.

8 **Q.** And limitation 1.10 -- let's put that up as well -- says
9 (as read):

10 "While displaying" -- it's right below the
11 highlighted language, sir -- "While displaying the
12 representation of the first zone and the representation of
13 the second zone scene receiving a third request to invoke
14 the first zone scene."

15 Do you see that, sir?

16 **A.** I do.

17 **Q.** And the comparable limitations of the '885 patent don't
18 say anything about displaying the representation of the first
19 zone scene and the representation of the second zone scene
20 while or at the time that you receive a third request; correct?

21 **A.** I agree with you partially that there is a language of
22 selection in claim 1 of the '885 which corresponds to the
23 request, but the display part is not there in the claim
24 language, only in my analysis.

25 **Q.** Okay. So, sir, let's put up -- in your expert report in

1 this case, the only thing you said about these limitations in
2 the '966 is that we should look at your analysis of the '885;
3 correct?

4 **A.** Claim limitations 1.6, 1.7, and I think a couple of others
5 from the '885.

6 **MR. ROBERTS:** So let's put up paragraphs 976, 977 from
7 page 649. And can we blow those up, Mr. Jay, please?

8 **BY MR. ROBERTS:**

9 **Q.** So in 976 here, you say (as read):

10 "See supra '885 claim limitations 1.6 and 1.7."

11 And you point to the '885 for your discussion of this
12 limitation 1.10, "while displaying the representation of the
13 first zone scene"; correct?

14 **A.** I didn't completely follow you. Are you talking about
15 976?

16 **Q.** Yeah. So the -- you have paragraph 976 at the top of your
17 screen?

18 **A.** Yep.

19 **Q.** It says see supra '885, claim 1, limitations 1.6 and 1.7.

20 **A.** That's right.

21 **Q.** And that relates to limitation 1.10 -- oh, excuse me.

22 That relates to limitation 1.9. I was looking below. I
23 should have been looking above.

24 **A.** Now I follow.

25 **Q.** So you said if you want to see your analysis for

1 limitation 1.9, which calls for displaying a representation and
2 a second representation, we should look at your analysis of the
3 '885; correct?

4 **A.** That's correct.

5 **Q.** But, sir, your analysis of the '885 did not include any
6 analysis about displaying representations; correct?

7 **A.** Incorrect.

8 **Q.** Well, I look forward to your counsel showing it on
9 recross.

10 One of the prior art references you considered was
11 Squeezebox; correct, sir?

12 **A.** It was, yes.

13 **Q.** In this context, for the zone player itself you are
14 reading that on one of the Squeezebox players or the
15 Softsqueeze; correct?

16 **A.** Let me be more precise for what I did. I was reading it
17 on the Squeezebox system. I was testing it in many different
18 ways, one of which was confirming its operation using
19 Softsqueeze.

20 **Q.** That wasn't quite my question, sir. Let me -- let me
21 rephrase it.

22 When we talk about the zone players, the component of the
23 Squeezebox system that is analogous to the zone players, are
24 the Squeezebox player or the software alternative, the
25 Softsqueeze; correct?

1 A. Yeah, that's correct.

2 Q. And those players were designed to work with a server
3 called a SlimServer; correct?

4 A. With one or more but, yes.

5 Q. All right. So let's start with the players.

6 You did not analyze the source code for these Squeezebox
7 players; correct?

8 A. Only the software not the source code, I agree with you.

9 Q. And you did not have access to the Softsqueeze source code
10 either; correct?

11 A. That's right.

12 Q. You are aware, sir, that none of the Squeezebox devices
13 you tested have firmware that was released prior to the
14 priority date for the '885 patent; correct?

15 A. I think that's incorrect. There was one Squeezebox that
16 did have a date prior to that.

17 Q. Let's test --

18 MR. ROBERTS: Let's play 216:12 through 217:2 of your
19 August 31st depo.

20 (Video was played but not reported.)

21 BY MR. ROBERTS:

22 Q. During your testing of the physical system, sir, you did
23 not test how to add a single Squeezebox player to two different
24 sync groups that existed at the same time; correct?

25 A. They did exist at the same time on the two servers but not

1 in a single server.

2 Q. Sir, I was talking about the physical --

3 A. Oh.

4 Q. -- Squeezebox and your testing of the physical devices;
5 correct?

6 A. I'm sorry. I misunderstood. You're correct.

7 Q. Okay.

8 MR. ROBERTS: Let's put up DDX10.84, which you looked
9 at this morning, please.

10 (Pause in proceedings.)

11 BY MR. ROBERTS:

12 Q. You showed this diagram this morning, this demonstrative,
13 sir?

14 A. I did, yes.

15 Q. Okay. To show the testing?

16 A. Part of the testing, yes.

17 Q. But, sir, you didn't assemble any physical devices in this
18 configuration; correct?

19 A. For the physical devices, correct.

20 Q. Okay. So this is not a representation of the physical
21 testing that you did; correct?

22 A. That, I disagree with.

23 Q. Well, sir, no physical devices were in two overlapping
24 zones in your testing; correct?

25 A. That's correct, but it is a representation of the

1 Softsqueeze, which is a representation of the Squeezeboxes.

2 Q. Okay. So let's talk about the Softsqueeze.

3 But, okay, so let me put it this way: When you put up
4 this picture, you weren't meaning to suggest to the jury that
5 they should read these as being physical devices; correct?

6 A. They should because that -- what I showed was at the time
7 you could do exactly that with the physical devices, and I
8 proved it with the Softsqueeze.

9 Q. Well, let's talk about the Softsqueeze then.

10 When the Squeezebox players -- you can take this down --
11 are in a sync group, you are not aware of any direct
12 communication between those Squeezebox players; correct?

13 A. Only through the server.

14 Q. And, sir, you agree that the server, the SlimServer, in
15 the Squeezebox system is not a router; correct?

16 A. It is not a router, no.

17 Q. And, therefore, no messages are routed from one Squeezebox
18 through the SlimServer to another Squeezebox; correct?

19 A. They are intended to arrive there but not in the routing
20 protocol.

21 Q. Well, nothing gets routed through; right?

22 A. If you mean by routing, you mean a routing protocol, I
23 agree. If you mean it gets passed through, the information is
24 conveyed, I would disagree?

25 MR. ROBERTS: Let's play his testimony at 226:21

1 through 227:6.

2 (Video was played but not reported.)

3 **BY MR. ROBERTS:**

4 **Q.** When you gave this answer, you intended to say it doesn't
5 get routed through but it gets passed through?

6 **A.** I think the answer I gave back then is completely
7 consistent. The information gets passed through but nothing
8 gets routed.

9 **Q.** That's not how you answered the question in the
10 deposition; correct?

11 **A.** They are both correct.

12 **Q.** Sir, you said you created this overlapping system with the
13 Softsqueeze; correct?

14 **A.** The Softsqueeze and two SlimServers, that's right.

15 **Q.** Okay. And to do that, you created a system with multiple
16 virtual machines that would talk to each other; correct?

17 **A.** That's right. I had to go back in time so I needed
18 virtual machines to put me back in 2005.

19 **Q.** Okay.

20 **MR. ROBERTS:** So let's show DDX10.85.

21 **BY MR. ROBERTS:**

22 **Q.** And this is the slide that you showed to illustrate that
23 virtual construction.

24 Sir, you were not aware of anyone who at the relevant time
25 linked multiple virtual servers up together in order to create

1 this kind of a system; correct?

2 **A.** I think -- I'm aware of creating multiple servers, but not
3 necessarily for this particular way of doing it. I would agree
4 with that.

5 (Pause in proceedings.)

6 **BY MR. ROBERTS:**

7 **Q.** Sir, you also described a Crestron system in your
8 testimony this morning?

9 **A.** I did, yes.

10 **Q.** And you described Crestron as being a prior art system;
11 correct?

12 **A.** Yeah. It was part of my combination with the knowledge of
13 a person of skill, but I did describe this prior art.

14 **MR. ROBERTS:** And let's look at TX3698, just the first
15 page of it, please.

16 **BY MR. ROBERTS:**

17 **Q.** This was already admitted into evidence. It's in your
18 direct binder, sir.

19 **A.** I recognize the document.

20 **Q.** You recognize the document?

21 **A.** I do.

22 **Q.** This is the document you testified about this morning?

23 **A.** It is, yes.

24 **Q.** And this is the document you based your opinions on?

25 **A.** Part of my opinions, yes.

1 Q. Okay.

2 MR. ROBERTS: Can we look at TX39 -- 698 at page 2 at
3 the bottom of the page? And can we just blow up the bottom of
4 the page, sir?

5 BY MR. ROBERTS:

6 Q. What is the copyright date of this document, sir?

7 A. 2008.

8 Q. Thank you.

9 Is that before or after the conception and priority date
10 of this patent?

11 A. That would be after the conception date.

12 Were you asking priority or conception?

13 Q. Both, but you've answered the question so we can move on.
14 Thank you.

15 And I'll withdraw it. I'm just asking the claimed
16 priority date for the patent, sir, as you understand it, is
17 2006; correct?

18 A. The alleged priority date is 2006, that's right.

19 Q. That's the date you applied in your analysis?

20 A. Yeah, that's correct.

21 Q. You also understand, sir, that the Crestron system, a
22 different guide was actually in front of the examiner during
23 the examination; correct?

24 A. I don't recall that.

25 Q. We'll get to it in a minute then.

1 And, sir, the user guide for the Sonos 2005 system, that
2 was also in front of the user; correct?

3 A. The guide itself, yes.

4 Q. And we talked about the Squeezebox or Slim Devices;
5 correct?

6 A. We did, yes.

7 Q. And those were also in front of the examiner? The manuals
8 for those documents -- the documents for those products were in
9 front of the examiner?

10 A. Some of the documents. Only the documents were in front
11 of the examiner.

12 Q. Sir, there were six documents related to those systems
13 that were considered by the examiner during prosecution and
14 listed on an information disclosure statement; correct?

15 A. There were multiple. I don't remember the number.

16 Q. Why don't we put them up.

17 MR. ROBERTS: It's the '885 file history, excerpt
18 pages 6585 through 6589. And 6587, 6588. Could we pull them
19 out and highlight them, Mr. Jay?

20 BY MR. ROBERTS:

21 Q. It's line 22, sir. Do you see line 22 here?

22 A. Yes.

23 Q. That's the owner's guide that was in front of the examiner
24 on an IDS?

25 A. Not prior art but, yes, it was.

1 Q. Okay. The 24, the Squeezebox network music player?

2 A. That --

3 Q. That was prior art that was in front of the examiner?

4 A. It was.

5 MR. ROBERTS: Line 17. Let's go up a little bit.

6 (Pause in proceedings.)

7 BY MR. ROBERTS:

8 Q. The Logitech SlimServer; right? That's the -- that's the
9 server for the Squeezebox system that was in front of the
10 examiner?

11 A. Not exactly. A reference to the -- to a page was there
12 but just the page.

13 Q. Okay. Well, sir, you see there were these other three
14 documents were all there?

15 A. I do see the listing of those documents.

16 Q. Okay. Including the Logitech SlimServer Version 2.3
17 Release 19 May 2002, he had two pages from that as well?

18 A. Yeah. It's just a listing but it's not the actual code,
19 but I see it listed.

20 Q. Okay. Now, you also relied on the Nourse patent; correct,
21 sir?

22 A. I did, yes.

23 Q. The Nourse patent was also in front of the examiner during
24 prosecution?

25 A. Yeah, absolutely.

1 Q. It was listed on an IDS?

2 A. I think so.

3 Q. It was fully considered by the examiner?

4 A. I don't know if it was fully, but I think the word he used
5 were "fully considered."

6 Q. You also relied on the Yamaha DME system; correct?

7 A. Not for my invalidity analysis.

8 Q. Okay. You're not relying on Yamaha for your invalidity
9 analysis?

10 A. Are you asking me in the context of my reports or in the
11 context of what is being represented here?

12 Q. If you're not relying on the Yamaha system for invalidity,
13 that's fine.

14 A. Only so far as knowledge of a person of ordinary skill in
15 the art I am.

16 Q. And you understand, sir, that the Yamaha DME system was
17 also in front of the examiner?

18 A. Yeah. Actually, the examiner discussed it in detail, as I
19 mentioned.

20 Q. All right. Let's talk about the Outland Research
21 agreement.

22 Sir, you would agree with me that the evaluation of
23 technological comparability involves an element of
24 approximation and uncertainty; correct?

25 A. Well, you were talking about the word "evaluation," and

1 that goes beyond my technical knowledge. So if you're talking
2 about evaluation from a dollars-and-cents point of view, I'm
3 not the right person to ask this.

4 **Q.** Okay. Well, let's look at your rebuttal report, paragraph
5 15.

6 **A.** You want me to open it?

7 **Q.** Sir, I've got it up here on the screen, and I just want to
8 put the last three lines in front of you.

9 Sorry. I don't think this is the correct report.

10 (Pause in proceedings.)

11 **MR. ROBERTS:** The rebuttal report, please, Mr. Jay.

12 You don't have it? All right.

13 (Pause in proceedings.)

14 **BY MR. ROBERTS:**

15 **Q.** So, yes, sir, if you can open your rebuttal report,
16 paragraph 15.

17 **A.** (Witness examines document.) I have it. It was the same
18 paragraph that was shown.

19 **Q.** Okay. Then I have the wrong cite. We'll move on.

20 (Pause in proceedings.)

21 **BY MR. ROBERTS:**

22 **Q.** Sir, you agree that something can be technologically
23 comparable to a claimed invention without teaching each and
24 every claim limitation; correct?

25 **A.** That's correct.

1 Q. You reviewed an agreement with Outland Research?

2 A. I did, yes.

3 Q. And that agreement contains 28 patents and applications?

4 A. I remember 12.

5 Q. So let's look at TX6016, Exhibit A, page 10.

6 (Pause in proceedings.)

7 BY MR. ROBERTS:

8 Q. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 --
9 next page, please.

10 So I see at least 16 here. Do you agree with that, sir?

11 A. Yeah. I was counting 12 patents, but you counted the
12 applications too. I think we're in agreement.

13 Q. Okay. And you think that four of them are comparable;
14 correct?

15 A. Yeah, generally technically comparable; some more
16 comparable, some less comparable.

17 Q. Let's start with the '694. It's your opinion that the
18 '694 patent is technologically comparable to the '885 and '966
19 patents?

20 A. I'm going to have to open it up. If you don't mind giving
21 me the TX number.

22 Q. Yeah. It's TX2676. I believe it's in evidence.

23 MR. ROBERTS: Can we pull it up, please?

24 (Pause in proceedings.)

25 MR. ROBERTS: It's not in evidence.

1 **BY MR. ROBERTS:**

2 **Q.** Okay. So let me ask you to look at it, sir.

3 Sir, this is one of the patents that you opined with
4 technologically comparable?

5 **A.** It is.

6 **MR. ROBERTS:** I offer TX2676 in evidence.

7 **THE COURT:** Received in evidence 2676. Hearing no
8 objection in evidence.

9 (Trial Exhibit 2676 received in evidence.)

10 **MR. ROBERTS:** All right. Let's put up the title page.

11 **BY MR. ROBERTS:**

12 **Q.** Sir, this is a portable music player with synchronized
13 transmissive visible -- visual overlays; correct?

14 **A.** That is correct.

15 **Q.** And the beginning of the abstract says it's directed to a
16 portable music player apparatus that outputs visual content to
17 a head-worn transmissive display, the visual content being
18 modulated in time with playing musical content and overlaid
19 upon the user's direct view of his or her physical
20 surroundings; correct?

21 **A.** That's correct.

22 **Q.** This is directed to a VR headset?

23 **A.** I wouldn't put it this way. It's directed to
24 synchronization between audio and visual display.

25 **Q.** Well, let's look at Picture Number 1.

1 This is the apparatus that's claimed -- depiction of the
2 apparatus that's claimed in the invention?

3 A. That's correct.

4 Q. And your view is that this is analogous?

5 A. That's right. There is synchronization of two media.
6 It's -- in my opinion, it's technically comparable.

7 Q. There's no selection of groups; correct?

8 A. No. It's just one group. The group happen to be the
9 media you see visually and the media you hear.

10 Q. And so in forming your opinion of the '694 technologically
11 comparable, you didn't perform an analysis of whether it met
12 the limitations of either claim of -- or claim 1 of the '885
13 patent; correct?

14 A. Well, I do think it's related to the synchronization
15 aspect of the claim. That's a big part of it. If you look at
16 column 6 of this patent --

17 Q. I'm sorry, sir. Just because I have limited time, my
18 question was not whether it's related. My question was: Did
19 you perform an analysis of whether it met the claims?

20 A. I did not check limitation by limitation and perform such
21 an analysis. It's my understanding that it's not required as
22 you stated.

23 Q. Okay. You --

24 MR. ROBERTS: I was passed a note to add the file
25 history experts to already admitted TX006. Any objection?

1 **MR. PAK:** No objection.

2 **THE COURT:** What's the number?

3 **MR. ROBERTS:** Zero zero six.

4 **THE COURT:** I just don't understand what's being
5 added.

6 **MR. MOSS:** Your Honor, a few days ago Mr. Pak added
7 excerpts from the file history for the '885 patent in evidence.
8 You invited Sonos to supplement with additions that they felt
9 were important. They were discussed with Dr. Schonfeld, and we
10 want to make sure they are in the record.

11 **THE COURT:** I don't have them. Where are they?

12 **MR. MOSS:** I passed them to your clerk, Your Honor.

13 **THE COURT:** Where are they? Is this it right here?

14 **MR. MOSS:** Yes, Your Honor.

15 **THE COURT:** Have you looked at this?

16 **MR. PAK:** May I see the specific? You're not moving
17 the whole history in?

18 **MR. MOSS:** Just --

19 (Pause in proceedings.)

20 **MR. PAK:** This is fine, Your Honor.

21 **THE COURT:** Okay. What's -- what number do I say is
22 in evidence?

23 **MR. PAK:** I think you say TX006 with excerpts from
24 both parties.

25 **THE COURT:** All right. In evidence. Thank you.

(Trial Exhibit 006 received in evidence.)

MR. ROBERTS: Thank you, Your Honor.

BY MR. ROBERTS:

Q. I apologize for the interruption, sir.

You also contend that the '414 patent from the
Outland Research agreement is technologically comparable;
correct?

A. I do.

Q. Can we show you TX2675 and ask you to confirm that that is
the '414 patent that you contend is technologically comparable?

THE COURT: It's already in evidence.

MR. ROBERTS: Thank you.

BY MR. ROBERTS:

Q. Sir, this is the '414 patent that you claim is
technologically comparable?

A. Yeah, I believe that's probably the most technically
comparable.

Q. Okay. And let me ask you to look at the abstract.

It calls for a system method and computer program product
for enabling a plurality of users engaged in realtime voice
communication -- excuse me -- engaged in realtime voice
communications over a wireless communication link to
collaborate --

A. Collaboratively.

Q. -- collaboratively select one or more music files and to

1 jointly listen to the collaboratively selected musical media
2 file in approximate synchronicity as mutually perceivable
3 background musical stream; correct?

4 A. That's correct.

5 Q. The fact that the players are only approximately in
6 synchrony doesn't make this technologically incomparable in
7 your view; correct?

8 A. No. When they say -- they describe in detail the timing
9 synchronization signals going back and forth and when they say
10 "in approximate synchronicity," they mean that you can never
11 get perfection.

12 Q. Sir, you also think the '117 patent is technologically
13 comparable; correct?

14 Well, sir, this patent, before we move on, also doesn't
15 deal with saving groups and then later invoking the groups;
16 correct?

17 A. I would say that's probably correct even though I didn't
18 test for it, but it sounds right.

19 Q. Okay. You also think the '117 patent is technologically
20 comparable; correct?

21 A. And what number is that?

22 Q. The '117 patent, sir. It's 7,562,117.

23 A. Did you say 7?

24 Q. 7,562,117.

25 A. (Witness examines document.) I don't see it in your

1 binder. I know the patent number you're referring to. I
2 remember it.

3 Q. It is TX2674.

4 A. Oh.

5 THE COURT: While he's looking, any objection?

6 MR. PAK: No objection.

7 THE COURT: Received in evidence.

8 (Trial Exhibit 2674 received in evidence.)

9 BY MR. ROBERTS:

10 Q. Sir, the abstract here, and if I just go down to A -- I
11 don't want to read it -- spend too much reading it all, but it
12 describes sending, receiving, and tallying media suggestions
13 and broadcasting consensus media choice for realtime playback;
14 correct?

15 A. That's correct.

16 Q. It doesn't claim a process for saving and invoking groups
17 of players; correct?

18 A. I would agree with that.

19 Q. The last patent you testified is comparable is the '816.
20 That is at TX2673 in your binder, sir.

21 A. (Witness examines document.) That is correct.

22 Q. And it is titled "System and method and computer program
23 product for automatically selecting, suggesting, and playing
24 music media files"; correct?

25 A. That is correct.

1 **MR. ROBERTS:** I move TX2673 in evidence.

2 **THE COURT:** Any objection?

3 **MR. PAK:** No objection.

4 **THE COURT:** Received in evidence.

5 (Trial Exhibit 2673 received in evidence.)

6 **BY MR. ROBERTS:**

7 **Q.** And let's look at the abstract again (as read):

8 "System method and computer program product to
9 intelligently correlate ambient sensor signals,
10 chronographic information daily life schedule information,
11 and/or external meteorological information with a user's
12 previous music media file selection patterns for
13 predicting future music media file play recommendations to
14 a user of a portable media player."

15 Correct?

16 **A.** That's correct.

17 **Q.** So this is about recommending music to users?

18 **A.** In a collaborative fashion between multiple players,
19 that's correct.

20 **Q.** Not about saving and invoking groups of speakers; correct?

21 **A.** It is not about saving but -- and invoking is just about
22 the synchronization and timing synchronization for
23 recommendations.

24 **MR. ROBERTS:** I think that's all I have. I pass the
25 witness.

SCHONFELD - REDIRECT / PAK

1 **THE WITNESS:** Thank you.

2 **THE COURT:** Thank you.

3 **MR. PAK:** I have a brief redirect.

4 **THE COURT:** Please go ahead.

5 **REDIRECT EXAMINATION**

6 **BY MR. PAK:**

7 **Q.** All right. Good morning, Dr. Schonfeld.

8 I'm going to ask you a few questions about the questions
9 from Sonos' Counsel.

10 **MR. PAK:** So let's pull up DDX10.6.

11 **BY MR. PAK:**

12 **Q.** Just to remind the jury, the claims talk about operating
13 in a standalone mode in which the first zone player is
14 configured to play back media individually. Do you see that?

15 **A.** I do.

16 **Q.** The claims don't say just in standalone mode; correct?

17 **A.** Absolutely correct.

18 **Q.** Is your testimony that you gave in your depositions and
19 also the trial testimony consistent with the actual language of
20 the claims?

21 **A.** Yeah. I repeated it over many pages.

22 **Q.** And then also you testified -- we can take that down --
23 you testified in response to questioning from Sonos' Counsel
24 that when StopCurrentApp is called by the player, that it will
25 tear down the app. Do you recall that?

1 **A.** That's right.

2 **Q.** And is that --

3 **MR. ROBERTS:** Objection, Your Honor. I did not talk
4 about that at all. I asked if it stopped playing the music and
5 he interjected that.

6 **MR. PAK:** Just -- let me ask just one more question
7 after that, but that is the testimony that was given.

8 **THE COURT:** Wait a minute.

9 **MR. PAK:** Yes, sir.

10 **THE COURT:** What is your question going to be? Let me
11 hear the question.

12 And don't answer it yet.

13 **BY MR. PAK:**

14 **Q.** Is your testimony regarding StopCurrentApp consistent with
15 what Mr. MacKay said?

16 **MR. ROBERTS:** That's an attempt to get the expert to
17 adopt --

18 **THE COURT:** Let's not go there.

19 **MR. PAK:** Okay. No worries, Your Honor.

20 **BY MR. PAK:**

21 **Q.** Now, when you were analyzing the claim language for
22 infringement, are the words that are used to describe the
23 accused functionality that matter or the actual functionality
24 itself?

25 **A.** The words in the claim you mean?

1 Q. No. Just when you're talking about -- the words in the
2 claims absolutely matter.

3 A. Okay.

4 Q. But when you're talking about the functionality that is in
5 the accused devices, does the labeling of that functionality
6 matter or is it the actual functionality that matters?

7 A. Whether you call something in one name, like idle or stop
8 or just say it's not operating in two other modes --

9 MR. ROBERTS: Objection, Your Honor. This is the same
10 testimony in another form.

11 THE COURT: I don't think so.

12 Please -- I don't understand the question, though. You're
13 going to have to ask that question again because it -- it --
14 it's gone over my head. So --

15 MR. PAK: Okay, Your Honor.

16 THE COURT: -- try again.

17 BY MR. PAK:

18 Q. When we look at the functionality of the accused products
19 for assessing infringement, is the functionality that matter or
20 labels that one might put on that functionality?

21 THE COURT: Well, that's too argumentative. I'm going
22 to sustain my own objection.

23 (Laughter)

24 THE COURT: This -- I mean, you, yourself, have
25 pointed to things that -- in the -- you know, this prior art

1 that were in the user manual and -- and made a point of what
2 was in the user manual, how they referred to it. So I think
3 this is too argumentative. I'm sustaining my own objection.

4 **MR. PAK:** No worries, Your Honor.

5 Let's move on. The point's been made.

6 Let's put up DDX10.38.

7 (Pause in proceedings.)

8 **BY MR. PAK:**

9 **Q.** This is for the '966 patent, causing storage of the first
10 zone scene. Do you see that?

11 **A.** I do.

12 **Q.** And is that language, causing storage of the first scene,
13 an additional requirement in addition to creating a zone scene
14 according to these claims?

15 **A.** That's right. In -- based on receiving the request, you
16 must both cause the creation and cause the storage.

17 **Q.** And if we focus us on the "based on the third request
18 language" on the bottom on the right-hand side, it says you
19 cause the first zone player to transition from operating in the
20 standalone mode to operating in accordance with the first
21 defined grouping. Do you see that?

22 **A.** I do.

23 **Q.** And that first predefined grouping, which you are supposed
24 to use for group mode, is that supposed to be the one that is
25 stored as part of the storage step of the first zone scene?

1 A. Yeah. The first predefined grouping is pointing in an
2 antecedent basis to the first predefined grouping A first
3 predefined grouping in the first -- in the receiving
4 limitation.

5 Q. And so when you were talking about persistent storage
6 being required for these elements, these are extra elements,
7 can you just briefly explain to the jury what you meant by
8 that?

9 A. Yeah. It means that when you store it, whether you do it
10 in volatile or nonvolatile memory, you have to make sure it can
11 last so that when you want to use it later, you can use it. So
12 in case you want to use it tomorrow morning, it's still sitting
13 there.

14 Q. And based on that understanding and based on the actual
15 claim language, are these limitations in the '966 patent claims
16 satisfied by the accused devices from Google?

17 A. No, they are not.

18 Q. Okay. So let's look at one more topic, which is DDX10.49.

19 MR. PAK: Let's put that up.

20 BY MR. PAK:

21 Q. You were asked some questions about whether when you were
22 cross-referencing the evidence and analysis for the '885,
23 whether you showed us evidence of how the controller portrays
24 certain representations of zone scenes in groups. Do you
25 recall that?

1 A. I do.

2 Q. And so this is a slide TX6974 at 5. What were you showing
3 to us as part of the '885 presentation of evidence?

4 A. I was showing and describing how a user can press the
5 button in order to create this kind of a zone scene, how a user
6 can press another button to create another zone scene, and then
7 I was describing how the user can play -- press the "Play"
8 button to the right of this on the CR100 to invoke a zone
9 scene.

10 MR. PAK: If you turn to the next slide, DDX10.50.

11 BY MR. PAK:

12 Q. Were you showing us how the controller would display
13 various zone groups or scenes, including All Zones-Party Mode,
14 in the Sonos 2005 prior art system as part of your '885
15 presentation?

16 A. I did. I described exactly those issues in connection
17 with these two slides.

18 Q. So is the evidence and analysis that you did for the '885
19 claim elements, do those things support your view that
20 corresponding elements or additional elements like display
21 limitations are satisfied for the '966 patent?

22 A. Yeah. The '885 claim limitations that I pointed to do
23 support my analysis for the limitations of the claim 1 of the
24 '966 patent and the other claims.

25 Q. There were some exchanges between you and Counsel about

1 this Softsqueeze software that you actually operated?

2 A. That's right.

3 Q. Number one, is the software prior art?

4 A. The software is prior art, yes.

5 Q. And can you just briefly explain what you did with the
6 Softsqueeze prior art to understand the operation of the prior
7 art Squeezebox system?

8 A. The source code and software and executable or just the
9 executable?

10 Q. The executable and then we can talk about the SlimServer.

11 A. Okay. So in terms of the actual executable code, I ran
12 both the SlimServer and Softsqueeze, which is -- are the
13 Squeezebox terminals, and I ran them in something called a
14 virtual machine. It's basically a time warp. It's software
15 that puts it in an environment where you create a computer that
16 is from that time period.

17 So I chose a virtual machine from that time period called
18 VMware. I put the software inside. I put an operating system
19 inside the virtual machine, Fedora software from that time
20 period, and created the complete environment that is as if I
21 lived in 2005 from the point of view of the software.

22 Q. Is that a reliable way from an engineering standpoint to
23 try to understand how the system operated back in 2005 time
24 period?

25 A. Absolutely.

1 Q. Okay.

2 MR. PAK: And then let's just put up DDX10.77.

3 BY MR. PAK:

4 Q. For the Squeezebox combination, which elements were you
5 combining Squeezebox with the Sonos 2005 prior art system?

6 A. I was combining it for the purpose of showing the
7 overlapping storage and saving.

8 Q. Did you find that functionality based on your software
9 review, the source code review, and the testing that you did?

10 A. Based on all of the evidence, including the source code
11 and software.

12 Q. Okay. Just briefly, there was some discussion about the
13 Crestron manual. It had a 2008 copyright. But you understand
14 there was an earlier 2005 manual as well that was presented to
15 the examiner? Do you recall that?

16 A. That's my understanding.

17 Q. And did you review that in forming your opinions --

18 A. I did.

19 Q. -- as well?

20 Do your opinions about what Crestron taught publicly and
21 the system that existed publicly change whether we look at the
22 2008 or the 2005?

23 A. No. The disclosure of the 2008 is no different from the
24 system, the earlier description in 2005.

25 Q. Okay. And there were a number of suggestions that the

1 patent examiner may have seen everything about the prior art.

2 Do you recall that from Counsel, Sonos' Counsel?

3 **A.** I'm not sure that's what he was trying to convey, but I
4 remember the line of questions.

5 **Q.** Let's review quickly what the patent examiner did not have
6 the opportunity to consider.

7 Did the patent examiner have the actual source code for
8 the Sonos 2005 prior art system when he was analyzing the
9 patents in suit?

10 **A.** No.

11 **Q.** Did he have access to Mr. Lambourne's testimony and the
12 documents that went back to 2005, the examiner at the Patent
13 Office, when he was thinking about the two patents in suit?

14 **A.** Only some of the documents. The public documents, not the
15 confidential documents.

16 **Q.** Like the sworn declaration and the user interface
17 specifications, did the examiner have access to any of that
18 information?

19 **A.** No.

20 **Q.** And also there was mention about the SlimServer software
21 that you analyzed. There was only one page listed, the front
22 page, finding the directory where you can find those things;
23 correct?

24 **A.** That's correct.

25 **Q.** So did the patent examiner actually get to see all of the

1 code that you saw?

2 **A.** I would be very surprised if he did.

3 **Q.** Is there any evidence that he actually considered the
4 actual software code, the source code?

5 **A.** No.

6 **Q.** Did Mr. -- or the examiner at the Patent Office have
7 access to the operational executable code, the Squeezebox
8 products, as well as the servers that you used to conduct your
9 testing?

10 **A.** No.

11 **Q.** Okay. So in your opinion, Doctor, did the patent examiner
12 have all of the pieces of evidence that we have presented
13 through your testimony regarding the prior art that you
14 discussed?

15 **A.** No. All of my analysis for prior art is based on evidence
16 that was not available to the examiner in the combinations that
17 I analyzed.

18 **Q.** Thank you.

19 **MR. PAK:** I pass the witness, Your Honor.

20 **THE COURT:** All right.

21 **RECROSS-EXAMINATION**

22 **BY MR. ROBERTS:**

23 **Q.** Just one question, sir.

24 You did not attempt to explain to the jury which parts of
25 your analysis were found in the code and not found in the

1 documents; correct?

2 **A.** I did in parts. Mr. Pak asked me where did I find the set
3 AVTransport URI message, and I answered that question.

4 **Q.** Other than that example, you didn't go through and say,
5 "Well, this function wasn't in the document and I only found it
6 in the code, and I wouldn't have known about it from the
7 document"? That wasn't part of your testimony; correct?

8 **A.** No, but I could do the same thing for Squeezebox.

9 **MR. ROBERTS:** Okay.

10 **THE COURT:** Okay. Is that it?

11 **MR. PAK:** That's it, Your Honor.

12 **THE COURT:** All right. May the witness step down? I
13 think so.

14 Okay. Thank you, Dr. Schonfeld. You may step down.

15 (Witness excused.)

16 **THE COURT:** Next witness.

17 **MR. PAK:** Yes, Your Honor. The next witness will be
18 Chris Chan from Google, and my colleague Ms. Melissa Baily will
19 be presenting that witness.

20 **THE CLERK:** May the witness please approach the
21 witness stand.

22 **THE COURT:** How long approximately will this witness
23 be?

24 **MS. BAILY:** Not very long, Your Honor.

25 **THE COURT:** All right.

1 **MS. BAILY:** May my colleague approach with some
2 materials?

3 **THE COURT:** Yes. I think you should clear the witness
4 bench so that the witness will have an opportunity to spread
5 out things.

6 **MR. PAK:** We're doing some weightlifting, Your Honor.

7 **THE COURT:** It looks like it, yes. Thank you.
8 All right. Let's swear in the witness.

9 **CHRISTOPHER CHAN,**
10 called as a witness for the Defendant, having been duly sworn,
11 testified as follows:

12 **THE CLERK:** Thank you.

13 Please state your full -- you may sit down.

14 Please state your full name for the record and spell your
15 last name.

16 **THE WITNESS:** Christopher Chan, C-H-A-N.

17 **THE COURT:** All right. Just so you'll be more
18 comfortable, this microphone moves back and forth so you don't
19 have to lean forward quite so much.

20 **THE WITNESS:** Thank you.

21 **THE COURT:** But it is important that it be close
22 enough to catch your voice.

23 **THE WITNESS:** Okay.

24 **THE COURT:** That's good right there.

25 Ms. Baily, you may proceed.

1 **MS. BAILY:** Thank you, Your Honor.

2 My colleague is just going to bring some items up to the
3 witness stand?

4 **THE COURT:** Fine.

5 **DIRECT EXAMINATION**

6 **BY MS. BAILY:**

7 **Q.** Good morning, Mr. Chan.

8 **A.** Good morning.

9 **Q.** Could you please introduce yourself to the jury?

10 **A.** My name is Christopher Chan. I'm a product manager at
11 Google.

12 **Q.** Can you tell the jury just a little bit about yourself?

13 **A.** I was born and raised in Hayward. I now live in Oakland
14 with my wife, who is a physician at Kaiser, and my two girls,
15 Sophia and Alyssa, and her parents.

16 **Q.** And can you tell us just a bit about your educational
17 background?

18 **A.** I went to Stanford University where I got both my
19 bachelor's and master's in computer science.

20 **Q.** When did you join Google?

21 **A.** I joined Google as a full-time product manager in 2017.

22 **Q.** When you joined Google, what products did you work on?

23 **A.** I worked on our smart speaker products.

24 **Q.** What role did you have?

25 **A.** I was a software lead.

1 Q. As a software lead, what kinds of features did you work on
2 with respect to the speaker products?

3 A. Some examples of features I worked on are Project Marble,
4 an initiative to make the Google Assistant faster on our smart
5 speakers. I also worked on Smart Sound, a feature that
6 optimized the speaker sound based on the acoustics of the room
7 using artificial intelligence techniques.

8 Q. You mentioned Google Assistant. What is that?

9 A. Google Assistant is a voice-activated helper that you can
10 use to play music on a device, control your smart home, set
11 timers and alarms or get general information to use it. You
12 just say "Okay, Google"; and an example of that is "Okay,
13 Google, what's the weather tomorrow?"

14 Q. Did you prepare some demonstratives to help with your
15 testimony today?

16 A. I did.

17 MS. BAILY: Let's go to DDX11.1.

18 (Pause in proceedings.)

19 BY MS. BAILY:

20 Q. Can you please tell the jury what's on this slide?

21 A. So this is the smart home tab of the online Google store,
22 and it showcases all of the smart home products that we
23 currently sell.

24 MS. BAILY: Let's go to DDX11.2.

25 \\

1 **BY MS. BAILY:**

2 **Q.** What's being shown here?

3 **A.** These are our Chromecast devices, which are part of our
4 total smart home offering, and Chromecast devices are used for
5 streaming content from your phone to your TV.

6 **Q.** Do you see a physical exhibit up there TX3509?

7 **A.** Yes, I do.

8 **Q.** What is that?

9 **A.** This is Chromecast with Google TV.

10 **MS. BAILY:** Your Honor, permission to move TX3509 into
11 evidence.

12 **MR. PAK:** No objection, Your Honor.

13 **THE COURT:** Three five?

14 **MS. BAILY:** Zero nine.

15 **THE COURT:** In evidence. Thank you.

16 (Trial Exhibit 3509 received in evidence.)

17 **MS. BAILY:** Thank you.

18 **THE COURT:** Can you hold it up again? I didn't --

19 **MS. BAILY:** Yeah.

20 **BY MS. BAILY:**

21 **Q.** Can you hold it up to the jury so they can see it, and
22 could you just explain what it does?

23 **A.** Yeah. So this is Chromecast with Google TV. You connect
24 this part to the back of your TV through an HDMI port, and you
25 can use it to either stream content from your phone; for

1 example, YouTube or Netflix. You can also use the remote to
2 browse apps that are actually on the TV. Again, all of the
3 kind of streaming services are supported, like HBO, Hulu, and
4 so forth, and you can use it to find content to watch.

5 **MS. BAILY:** And let's bring up DDX11.3.

6 **BY MS. BAILY:**

7 **Q.** What are these?

8 **A.** These are the smart speakers that we currently sell.

9 **Q.** Do you have a physical exhibit TX3787 in front of you?

10 **A.** I do.

11 **Q.** What is that?

12 **A.** This right here is Nest Audio.

13 **MS. BAILY:** I'd like to move TX3787 into evidence.

14 **MR. PAK:** No objection, Your Honor.

15 **THE COURT:** Received.

16 (Trial Exhibit 3787 received in evidence.)

17 **BY MS. BAILY:**

18 **Q.** So if you could just hold that one up as well just so the
19 jury can see it.

20 What are some of the popular features on the Nest Audio,
21 Nest Mini speakers?

22 **A.** So Nest Audio and Nest Mini both have the Google Assistant
23 inside. So that's a voice-activated helper where you can run
24 commands. You can play music on the device. You can control
25 various smart devices like lights, thermostats, and cameras.

1 You can set timers and alarms, as well as get general
2 information.

3 **Q.** Has Google ever sold a speaker that was more expensive
4 than the Nest Audio and the Nest Mini?

5 **A.** We have. We sold the Google Home Max in 2017 for \$399.

6 **Q.** And what happened to the Google Home Max?

7 **A.** It was discontinued shortly after launching because it
8 generally wasn't successful. We learned that pretty quickly
9 after one holiday sale cycle.

10 **Q.** All right. And do you have an understanding as to why the
11 Google Home Max was not successful?

12 **A.** Our sense was that people generally sought our smart
13 speaker products for the Google Assistant and found a lot of
14 value actually in our Mini line, which was offered at a far
15 more competitive price at \$49.

16 **MS. BAILY:** Let's go to the next slide, DDX11.4.

17 **BY MS. BAILY:**

18 **Q.** What are these products?

19 **A.** These are our smart display products. They're similar to
20 the smart speaker products in that they also have the Google
21 Assistant built in; but in addition to that, they have a
22 display to augment responses with some sort of visual answer.
23 They also have a dashboard for various controls.

24 The Nest Hub Max also has a camera built in, and so that's
25 useful for video calling. You can also set it up as a security

1 camera when you're away from home.

2 Q. Do you have a physical Exhibit TX3786 in front of you?

3 A. I do.

4 Q. What is that?

5 A. This here is a Nest Hub.

6 MS. BAILY: I'd like to move TX3786 into evidence.

7 MR. PAK: No objection, Your Honor.

8 THE COURT: Okay. It's in evidence.

9 (Trial Exhibit 3786 received in evidence.)

10 MS. BAILY: Thank you, Your Honor.

11 DDX11.5.

12 BY MS. BAILY:

13 Q. What is this?

14 A. This is Nest Wi-Fi Point. It's a mesh router.

15 Q. It's a what? Sorry?

16 A. Mesh router.

17 Q. And can you just describe a little bit for the jury what
18 it does?

19 A. It's useful for extending Wi-Fi coverage in your home, and
20 it also has the Google Assistant built in.

21 Q. Okay. So we've seen a lot of products.

22 MS. BAILY: We can take the demonstrative down.

23 BY MS. BAILY:

24 Q. At a very high level, what goes into developing products
25 like this at Google?

1 **A.** There's a lot of work that goes into developing hardware
2 products at Google. It's a really extensive collaboration
3 across hardware and software teams and many functions from
4 engineering to design to research, as well as broader functions
5 like business, sales, and marketing.

6 There are also multiple phases to the development of a
7 hardware product from concept, where you're validating a
8 business idea and figuring out potential product directions; to
9 development, where you're ultimately defining the hardware as
10 well as the specs, manufacturing, where once you figured out
11 the specs and the definition, how to manufacture the product
12 reliably and at scale; and, then, finally in market or
13 sustaining, where once a product hits shelves, how you're
14 continuing to meet demand and to ensure that there are new
15 features available for users.

16 **Q.** Approximately how many people at Google touch a product
17 from concept to launch in your experience?

18 **A.** Many people touch a product at Google, both in development
19 as well as once it's in market. As an example, for the most
20 recent product that I worked on, over a hundred people worked
21 on both hardware and software.

22 **Q.** And in your experience at Google, how long does it take to
23 bring a product like the ones we've been discussing to market?

24 **A.** It can take many years. The last product I worked on took
25 at least three years, but sometimes longer.

1 Q. Did you work on speaker grouping functionality during your
2 time as a product manager for Google's smart speakers?

3 A. Yes, I did.

4 Q. And in that context what does speaker grouping mean?

5 A. Speaker grouping is the ability to take two speaker
6 products and to play content out of both of them in synchrony.
7 You can use it to fill multiple rooms with music, for example.

8 Q. Are there different ways that Google speakers can be
9 grouped?

10 A. Yes. I can think --

11 Q. What are those ways?

12 A. I can think of three ways. The first we generally call
13 speaker grouping or static speaker groups. You can use the
14 Google Home app to assign two or more of your speakers a name.
15 The most common use of static speaker groups is to assign all
16 of the devices you own the name "All my speakers," so then
17 later you can say, "Okay, Google, Play music on all my
18 speakers."

19 The second example of groups is something we call stereo
20 pairing, and that's when you take two identical products and
21 put it in the same room to output stereo sound. It's analogous
22 to the way headphones work where you have the left channel of a
23 stereo mix outputting out of the left ear and the right channel
24 of a stereo mix outputting in the right ear. The same thing is
25 happening with these two products to fill a room with stereo

1 sound.

2 The final grouping feature we call dynamic groups, and
3 that's the ability to add or remove a device from playback
4 while you're listening to content.

5 **Q.** Why did Google introduce dynamic speaker groups?

6 **A.** We introduced dynamic groups because we found that static
7 groups were somewhat hard to set up and ultimately use. They
8 were hard to set up because people didn't necessarily know that
9 the feature existed or know to open the Google Home app to give
10 it a try; and then even if they did, they didn't necessarily
11 remember the names of the groups that they had set up.

12 **Q.** From your work on Google's speaker products, do you have
13 an understanding of how often speaker grouping functionality is
14 used?

15 **A.** I do.

16 **Q.** What is that?

17 **A.** My sense was that they weren't used very often.

18 **Q.** And why is that?

19 **A.** We saw that -- well, first of all, in order to be able to
20 create a group, you needed to own two or more devices and most
21 users only had one; and then even if you did own two or more
22 devices, you had to know to find the functionality in the Home
23 app to set it up.

24 Once you did set it up, you'd have to remember the name to
25 be able to use it by voice, and not everyone did that or told

1 other members of the household that they had set it up.

2 **Q.** In your work at Google, have you seen data relevant to how
3 often Google speakers are grouped?

4 **A.** I have.

5 **MS. BAILY:** May I approach the witness, Your Honor?

6 **THE COURT:** Yes.

7 (Pause in proceedings.)

8 **BY MS. BAILY:**

9 **Q.** If you could take a look at the document in your binder
10 labeled TX0140?

11 **A.** Okay.

12 **Q.** What is that?

13 **A.** This is a spreadsheet of setup and usage data for groups
14 functionality.

15 **MS. BAILY:** I'd ask that TX0140 be moved into
16 evidence.

17 **MR. RICHTER:** No objection, Your Honor.

18 **THE COURT:** 140?

19 **MS. BAILY:** Yes.

20 **THE COURT:** Received in evidence.

21 (Trial Exhibit 140 received in evidence.)

22 **MS. BAILY:** We can publish a sampling of the
23 spreadsheet to the jury.

24 **BY MS. BAILY:**

25 **Q.** Do these spreadsheets contain any data that identifies

1 users?

2 **A.** They do not. It contains device-level data only.

3 **Q.** So can you give an overview to the jury of what kind of
4 data is contained in these spreadsheets?

5 **A.** Yes. So there are three sheets in the spreadsheet. The
6 first sheet is about setup information and how often people set
7 up each of the three types of groups I mentioned earlier:
8 Static groups, stereo pairs, and dynamic groups. It is broken
9 out by product as well as broken out by date.

10 The second sheet called, Daily Multizone, refers to how
11 often people are using groups. Again, grouped by product as
12 well as by date. And it's a percentage of total connected
13 devices. I'll also note that in that device count, Column C,
14 it's about whether a device is in a group as a percentage of
15 total.

16 Finally, for the third sheet, 28-day Multizone, it's
17 looking at that same information, devices that are in groups,
18 divided by total connected devices but in a 28-day window.

19 **Q.** And from reviewing these three categories of data and as
20 informed by your experience working with the Google speaker
21 products, what can you conclude regarding the usage of the
22 grouping functionality?

23 **A.** When looking at all of this information, as well as
24 drawing from my experience with these devices, my sense is that
25 a very small fraction of total users, around 5 percent at the

1 most, are using groups.

2 Q. And what about with respect to static grouping versus
3 dynamic grouping versus stereo pairs? Do you have any
4 conclusions to draw with respect to usage as divided amongst
5 those categories of grouping?

6 A. What we saw was that about half of people using groups
7 were using dynamic groups versus static groups; and then of the
8 people using static groups, the majority of people who do use
9 it, use it to assign the name "All of my speakers" or
10 "Everywhere" to all of the devices they owned.

11 Q. All right.

12 MS. BAILY: We can take the spreadsheets down.

13 BY MS. BAILY:

14 Q. Are you aware that Google has implemented a new design
15 that changes the way Google speaker grouping works?

16 A. I am.

17 Q. And are you aware whether that new design has been rolled
18 out to consumers?

19 A. I am.

20 Q. Are you aware of how many products have been affected by
21 the new design?

22 A. I believe at least 17 million.

23 Q. And what is your understanding of how a user would
24 understand the experience of the new speaker grouping design?

25 A. My understanding of what the user would experience is that

1 if or when they set up a speaker group, that all of the devices
2 assigned to that group would stop playing audio if they were
3 playing audio.

4 **Q.** And in your view, based on your experience, how would that
5 impact the user experience more generally with respect to
6 grouping?

7 **A.** Very minimally. First, again, most people have just one
8 device and so they wouldn't be able to create a group in the
9 first place; but if they did and they had two or more and they
10 knew that this functionality existed, odds are it wouldn't
11 necessarily be playing audio or media while they were setting
12 it up. But if it were, it would stop and they might notice,
13 but it's ultimately a minor inconvenience because they can very
14 easily restart the content that they were listening to.

15 **Q.** Thank you, Mr. Chan.

16 **MS. BAILY:** Pass the witness?

17 **THE COURT:** Okay. Cross-examination.

18 **MR. RICHTER:** Yes, Your Honor. Good morning. Cole
19 Richter for Sonos.

20 **CROSS-EXAMINATION**

21 **BY MR. RICHTER:**

22 **Q.** Good morning, Mr. Chan.

23 **A.** Good morning.

24 **Q.** Good to see you again.

25 I believe your counsel just asked you a couple questions

1 about Google selling speakers. Do you recall those questions?

2 A. Yes.

3 Q. Google sells its speakers on its own website; is that
4 right?

5 A. That's right.

6 Q. And I believe counsel asked you questions about Google
7 selling individual speakers and how those -- an individual
8 speaker, like, for example, the Nest Audio, would cost \$99; is
9 that right?

10 A. That's right.

11 Q. Google sells speakers in bundles; is that right?

12 A. I'm not familiar actually with our current bundling plans.
13 Those change from time to time.

14 Q. I thought you had just testified about the smart home tab
15 of the online Google store; is that --

16 A. I did, yes.

17 Q. I'm looking at the Google store on my phone right now, and
18 are you aware that the Google store today offers something
19 called a room-filling audio package?

20 A. That does look familiar, yes.

21 Q. Okay. And then I'll scroll a little bit, and it looks
22 like there's two Nest Audios. Do you see that?

23 A. Yes.

24 Q. Okay. And the price of those two, it says pay 179.98.
25 Does that sound familiar?

1 A. I'm not familiar with current pricing, but I'm sure that's
2 correct.

3 Q. Okay. And are you aware that the site says "Hear music
4 the way it should sound with crisp vocals and powerful bass.
5 Pair two Nest Audio speakers for stereo sound or group them for
6 amazing sound across multiple rooms"? Does that sound
7 familiar?

8 A. It does.

9 Q. Okay. Great.

10 I believe your counsel had asked you some questions about
11 usage of multizone group features. Do you remember those,
12 Mr. Chan?

13 A. Yes.

14 Q. So am I correct that Google tracks how its customers use
15 Google products?

16 A. We do make available certain data sets for our team to
17 look at to improve our products, but it does depend on the kind
18 of data we're talking about.

19 MR. RICHTER: Mr. Jay, would you mind bringing up
20 PDX14, please? 14, that is. Thank you.

21 BY MR. RICHTER:

22 Q. This is a slide I prepared, Mr. Chan, and I took a
23 screenshot of TX140 that I think your counsel just asked you
24 about.

25 A. Yep.

1 Q. And then what I did was I filtered the product model by
2 the Prince name, and then I just screen capped here November 8,
3 2022, November 9, 2022, and November 10, 2022. What product
4 does Prince refer to?

5 A. Prince is the internal code name for Nest Audio.

6 Q. And that's the gray speaker right there in front of you;
7 is that right?

8 A. That's right. This is one of the available colors for it,
9 yep.

10 Q. And I think you had testified that device count, that
11 refers to the number of devices that were in a multizone group
12 on that particular day; is that right?

13 A. That's right.

14 Q. Is that a launched multizone group or a saved multizone
15 group?

16 A. So, like, I think "launched" and "saved" are more
17 technical concepts, but I can speak to the user experience.
18 And it can be a device that is in any of the three kinds of
19 groups I had mentioned previously: A static speaker group, a
20 dynamic group, or a stereo pair.

21 Q. Okay. So let's look at the bottom row, November 8. And I
22 also want to focus your attention on the column over to the
23 right. That says 3.32 percent of Prince devices were in a
24 multizone group on November 8, 2022; is that right?

25 A. Yeah.

1 Q. Okay. And the next day it was 3.38 percent of Prince
2 devices that were in a multizone group; is that right?

3 A. Looks like it.

4 Q. From this data, though, you're not able to tell me how
5 many Prince devices from November 8 are counted in the
6 November 9 row, are you?

7 A. I'm not from the data alone.

8 Q. And the number under the connected count, that refers to
9 the total number of Prince devices that were online on that
10 day? Do I have that right?

11 A. Yes.

12 Q. From this data, though --

13 A. In the U.S.

14 Q. In the US, okay.

15 A. Yeah.

16 Q. Okay. Thank you.

17 A. Yeah.

18 Q. From this data, though, you're not able to tell how many
19 of these connected devices are in households with two or more
20 speakers, are you?

21 A. From this data alone, you cannot tell that.

22 Q. So let me say that another way. In other words, the data
23 from TX140, that captures households that have just one single
24 device; isn't that right?

25 A. It is inclusive of households with any number of devices.

1 Q. I think we heard some testimony that Google had released
2 its static grouping feature in 2015; is that right?

3 A. That sounds familiar.

4 Q. Okay. And that's the feature that's accused of
5 infringement today; right?

6 A. I'm actually not too familiar with what's been accused of
7 infringement.

8 Q. You're not sure which of the grouping features in Google's
9 product are accused of infringement; is that right?

10 A. I think it's something about grouping in general and
11 overlapping groups.

12 Q. Okay. Well, let me just ask you a couple of questions
13 about static grouping then.

14 The static grouping feature is still in the products
15 today; is that right?

16 A. My understanding is that it is, yes.

17 Q. Okay. And if it was added in 2015, that's about
18 seven-plus years; is that right?

19 A. Yes.

20 Q. And over that time, Google has advertised multizone
21 features; is that right?

22 A. Um, so I personally define "advertising" as kind of
23 content on television or video ads or things like that. I'm
24 not familiar with any advertising campaigns.

25 Q. Okay. What about advertising online? Are you familiar

1 with any advertisements online that Google does concerning its
2 multizone features?

3 **A.** We have support articles that talk about our group
4 functionality and the occasional blog post, but I wouldn't
5 consider those advertising.

6 **Q.** Okay. Fair enough.

7 Let me ask it to you this way: Google provides
8 instructions to customers on how to create multizone groups of
9 two or more speakers; isn't that right?

10 **A.** Yes.

11 **Q.** And over these past seven years, I think I heard you
12 mention blog posts, but do I have it right that Google wrote
13 blog posts about its multiroom features?

14 **A.** Yes.

15 **Q.** And you wrote blog posts concerning Google's multiroom
16 features; isn't that right?

17 **A.** That's right.

18 **MR. RICHTER:** Your Honor, may I approach the witness
19 with a binder?

20 **THE COURT:** Yes, please.

21 **MR. RICHTER:** Thank you.

22 (Pause in proceedings.)

23 **BY MR. RICHTER:**

24 **Q.** Mr. Chan, can I have you turn to TX6353, please? And when
25 you're there, can you let us know what document this is?

CHAN - CROSS / RICHTER

1 **A.** I don't see that number. I see numbers that are much
2 smaller like 2444, 3509.

3 **THE COURT:** Will you go over and help the witness with
4 the notebook?

5 **MR. RICHTER:** Sure. Absolutely.

6 (Pause in proceedings.)

7 **BY MR. RICHTER:**

8 **Q.** Do you recognize this document, Mr. Chan?

9 **A.** I do.

10 **Q.** Okay. Great.

11 And is this a blog post that you wrote on or around
12 October 2019?

13 **A.** Yes.

14 **Q.** Okay.

15 **MR. RICHTER:** Mr. Jay -- I'm sorry.

16 Before we do that, Your Honor, may I move into evidence
17 TX6353?

18 **MS. BAILY:** No objection.

19 **THE COURT:** Yes. Received in evidence.

20 (Trial Exhibit 6353 received in evidence.)

21 **MR. RICHTER:** Okay. Wonderful.

22 And, Mr. Jay, would you mind pulling that up? And can we
23 focus just on the bottom bullet point? I'd like Mr. Chan to
24 read that bullet point aloud please.

25 **THE WITNESS:** (as read):

1 "Fill your home with music. If you have more than
2 one Google Home and Nest smart speaker or display, you can
3 set up a speaker group in the Home app, transfer music
4 from a single speaker to the speaker group to fill your
5 whole home with music."

6 **BY MR. RICHTER:**

7 **Q.** And do I have it right, this is a blog post that you wrote
8 concerning Google's multiroom features? Is that right?

9 **A.** It was concerning kind of a knew feature we were calling
10 stream transfer.

11 **Q.** Okay.

12 **MR. RICHTER:** And we can take that down, Mr. Jay.
13 Thank you.

14 **BY MR. RICHTER:**

15 **Q.** I think I heard you testify on direct that you started at
16 Google in 2017; is that right?

17 **A.** Yes.

18 **Q.** And who was your manager at that time?

19 **A.** Tomer Shekel was my first manager.

20 **Q.** And about how long was Mr. Shekel your manager?

21 **A.** I don't remember actually. I think it might have been
22 just a couple months.

23 **Q.** Okay. And at that time that Mr. Shekel was your manager,
24 I believe you may have worked on the Google Home -- Google Home
25 Max product; is that right?

1 A. Yes.

2 Q. Okay. And were you aware that Mr. Shekel in and around
3 this time had participated in defining certain aspects of how
4 the Google Home product worked?

5 A. Yes.

6 Q. Okay. And are you aware that one of those aspects that
7 Mr. Shekel participated in defining was how the Google Home
8 participated in multigroup playback? Are you aware of that?

9 A. Yes.

10 Q. Do I have it right that Mr. Shekel tasked you with working
11 on multiroom audio features when he was your manager?

12 A. I think I started working on it after he left; but it's
13 been a long time, so I don't remember the details.

14 Q. Did Mr. Shekel ever express to you that adding multiroom
15 audio features to Google speakers would help encourage users to
16 buy more Google speakers?

17 A. Possibly. I'm sorry, it's been a long time so I don't
18 know if he directly stated that. It was just one of many
19 features I sort of inherited when he transitioned away from the
20 team.

21 Q. And I think you had just testified that you were involved
22 during the development of the Google Home Max; is that right?

23 A. I was, yes.

24 Q. Okay. And the engineering team involved during the
25 development of that product considered a competitive set of

1 products; is that right?

2 **A.** We looked at other devices that might be comparable in
3 terms of audio quality as part of our benchmarking.

4 **Q.** And that competitive set of products included Sonos
5 products; is that right?

6 **A.** For certain types of evaluation, we would directly compare
7 the audio of the -- I think it was the Sonos Play 5, but we
8 were also comparing against other devices.

9 **Q.** And that would have been true during the development of
10 the Nest Audio, the engineering team there also considered
11 Sonos devices; is that right?

12 **A.** Yes, but across many others as well, including Amazon and
13 Apple.

14 **MR. RICHTER:** Pass the witness, Your Honor.

15 Thank you, Mr. Chan.

16 **THE COURT:** Thank you.

17 **MS. BAILY:** I don't have any further questions for
18 Mr. Chan.

19 **THE COURT:** Mr. Chan, you may step down. Thank you,
20 sir.

21 (Witness excused.)

22 **THE COURT:** All right. Next witness. Let's see, how
23 are you doing over there in the jury box? Do you need a break
24 yet?

25 **JUROR JOHNSON:** I can take a break.

THE COURT: You need a break?

JUROR JOHNSON: Yes, please.

THE COURT: All right. We're going to take a break and we'll resume in 15 minutes.

THE CLERK: All rise for the jury.

(Proceedings were heard outside the presence of the jury:)

THE COURT: Be seated, please.

Any issues for the judge?

MR. PAK: No, Your Honor.

MR. RICHTER: No, Your Honor.

THE COURT: And this is our last witness?

MR. PAK: I believe this is our last witness in our case, and then we are going to go to rebuttal and then we have a surrebuttal.

MR. RICHTER: One witness in rebuttal, Dr. Almeroth.

THE COURT: All right. Now, you-all -- you still have time left but by my notes, Google is up to 763 minutes. And I haven't done the math yet for Plaintiff, but Plaintiff is -- I don't know -- I'm going to -- roughly 730 minutes. It could be more or less.

So you both still have time, but we will be very close by the end of today to the absolute limit. So be mindful.

MR. SULLIVAN: Openings tomorrow, Your Honor?
Closings.

(Laughter)

1 **MR. PAK:** I don't want to do this again, Mr. Sullivan.

2 **MR. SULLIVAN:** Can I do an opening and a close?

3 **THE COURT:** I don't think we are going to get to the
4 closings tomorrow. The reason is that we have to go over -- I
5 have to do a charging conference, and so I think the closings
6 will be Friday.

7 **MR. SULLIVAN:** Sounds great, Your Honor.

8 **THE COURT:** I also have a doctor's appointment
9 tomorrow afternoon that I cannot miss. It is for myself. It's
10 important, and I -- so tomorrow afternoon will be off
11 completely.

12 So we -- we're going to have to figure out a way to get
13 the -- this is why it's so important, if I can get you-all to
14 help me streamline the case, then it would be easier to do
15 these instructions.

16 **MR. PAK:** Yes, Your Honor. We will work with
17 Mr. Sullivan and Mr. Roberts to make that happen, and we will
18 submit the jury instructions for you.

19 **THE COURT:** Well -- well, wait. Don't -- just --
20 don't submit instructions so much as tell me the areas where
21 you agree it can be winnowed down easily or --

22 **MR. PAK:** Will do, Your Honor.

23 **THE COURT:** -- one single sentence will do. So that
24 I can work that into the mix as I go along.

25 **MR. PAK:** Thank you, Your Honor.

1 **MR. SULLIVAN:** No problem, Your Honor.

2 **THE COURT:** All right. Thank you.

3 **THE CLERK:** Court is in recess.

4 (Recess taken at 10:46 a.m.)

5 (Proceedings resumed at 10:59 a.m.)

6 (Proceedings were heard out of the presence of the jury:)

7 **THE CLERK:** Please remain seated. Please come to
8 order.

9 **MR. SULLIVAN:** I've just got one procedural issue for
10 Your Honor. Well, maybe we have two.

11 **THE COURT:** Okay.

12 **MR. SULLIVAN:** Your Honor, I know we talked before
13 about doing the Rule 50(a) directed verdict motions outside the
14 presence of the jury. I'm not going to get an opportunity to
15 do that I think after Defendant's rest their case, so I'd like
16 to just make sure I preserve those --

17 **THE COURT:** We will deem it as if you had made those
18 motions and proceed to your case, and you can make the motion
19 later.

20 **MR. SULLIVAN:** Thank you, Your Honor.

21 **THE COURT:** It will be deemed as if it had been made
22 at the required time.

23 **MR. SULLIVAN:** Thank you very much, Your Honor. I
24 appreciate it.

25 **THE COURT:** What's the other thing?

1 **MS. CARIDIS:** Your Honor, Sonos just has a brief
2 objection as to one of the demonstrative exhibits that we
3 understand Mr. Bakewell is going to be testifying about; and
4 specifically during the motion in limines in this case, Google
5 made representations that Bakewell will not opine or suggest
6 that reasonable royalty damages are capped at the costs of
7 implementing noninfringing alternatives as a matter of law.

8 Based on the demonstrative that we were provided last
9 night, we're concerned that Mr. Bakewell is going to be giving
10 testimony that violates that representation.

11 **THE COURT:** Which demonstrative do you have in mind?

12 **MS. CARIDIS:** It's DDX12.7.

13 **MS. BAILY:** We can put that on the screen. This is
14 actually quotations from Sonos' expert report,
15 Mr. Malackowski's report, discussing the cost approach.

16 So this is from Sonos' expert's report, and Mr. Bakewell
17 is not going to be offering any legal conclusions that, as a
18 matter of law, anything happens, including that, as a matter of
19 law, noninfringing alternatives is a cap.

20 **MS. CARIDIS:** The representation that was made during
21 the motion in limine phase is that Bakewell will not suggest
22 that a reasonable royalty damage is capped by the cost of
23 implementing noninfringing damages.

24 By putting up this excerpt out of context for
25 Mr. Malackowski's report, the only purpose to put up this point

1 is to suggest that reasonable royalties are capped by the cost
2 of noninfringing alternatives.

3 **MS. BAILY:** Counsel, just to be clear, the
4 representation was that the expert would not make a
5 representation as a matter of law that this was a cap. That's
6 what we agreed to, and we're not going to violate that,
7 Your Honor.

8 **MS. CARIDIS:** I'm reading directly from your brief (as
9 read):

10 "Bakewell will not opine or suggest that reasonable
11 royalty damages are capped by the cost of implementing
12 noninfringing alternatives as a matter of law."
13 That is what this slide is intended to elicit.

14 **MS. BAILY:** The expert's not talking about the law,
15 Your Honor. This is a quote from Mr. Malackowski's report.

16 **MS. CARIDIS:** Taken out of context.

17 **MS. BAILY:** They can cross him on it, Your Honor.

18 **THE COURT:** I think you're free to talk about
19 noninfringing alternatives as a factor; but I think if you come
20 close to this slide -- I think you should not use the slide,
21 but you can elicit from him that noninfringing alternatives are
22 a factor because if it's too expensive to go the other way,
23 then noninfringing alternatives would be -- might be cheaper.

24 But I -- this does indicate a cap idea. So please don't
25 go there in light of the representation that Ms. Caridis read

1 to me.

2 **MS. BAILY:** Sure.

3 **MS. CARIDIS:** Thank you, Your Honor.

4 **THE COURT:** Can we bring in the jury now? And is the
5 witness here?

6 **MS. BAILY:** Yes.

7 **THE COURT:** Okay. Come on up. The witness can come
8 on up.

9 (Pause in proceedings.)

10 **THE COURT:** This is your last witness?

11 **MS. BAILY:** It is.

12 **THE COURT:** I'm going to explain that to the jury so
13 their heart can rise -- please go ahead and have a seat --
14 instead of sink.

15 (Pause in proceedings.)

16 **THE CLERK:** All rise for the jury.

17 (Proceedings were heard in the presence of the jury:)

18 **THE COURT:** Be seated, please. Thank you.

19 Let's call our next witness.

20 **MS. BAILY:** Google calls Christopher Bakewell.

21 **THE COURT:** All right. Please stand right there, sir,
22 and the clerk will swear you in.

23 **WILLIAM CHRISTOPHER BAKEWELL,**

24 called as a witness for the Defendant, having been duly sworn,
25 testified as follows:

BAKEWELL - DIRECT / BAILY

1 **THE CLERK:** Thank you. Please be seated.

2 **THE COURT:** All right. Before we get started with our
3 next witness, this is -- will be Google's last witness in its
4 case-in-chief, and then both sides get to present short
5 rebuttals as long as they stay within their overall time
6 limits. So this is not our last of the last, but it's the last
7 of the case-in-chief witnesses for Google. So we are making
8 some progress.

9 Okay. Are you --

10 **THE CLERK:** Please state your full name for the record
11 and spell your last name.

12 **THE WITNESS:** My full name is William Christopher
13 Bakewell. My last name is B-A-K-E-W-E-L-L.

14 **THE COURT:** Wonderful.

15 Please go ahead, Ms. Baily.

16 **MS. BAILY:** Thank you.

17 **DIRECT EXAMINATION**

18 **BY MS. BAILY:**

19 **Q.** Good morning, Mr. Bakewell.

20 Could you please introduce yourself to the jury?

21 **A.** Good morning. My name is Chris Bakewell. People when
22 they've been introducing themselves have been talking about
23 their families. I have three kids. One of them is fully
24 grown, two of them are half grown-up and half adult. They're
25 in college. And then I've been married for a while. I have a

1 wife too.

2 Q. What do you do for a living?

3 A. I value intellectual property.

4 Q. What testimony are you here to present to the jury today?

5 A. I'm here to provide testimony on reasonable royalties and
6 licensing issues.

7 Q. You understand that Google does not believe it owes a
8 reasonable royalty in this case?

9 A. I do.

10 Q. And are you saying that Google definitely owes a
11 reasonable royalty in this case?

12 A. No.

13 Q. Do you know why Google would put up a witness to talk
14 about a reasonable royalty if Google doesn't believe it owes
15 anything?

16 A. Well, it's part of the process, number one. It's the way
17 the process works, and Google has a right to respond to
18 evidence that Sonos put and Sonos' expert in case damages
19 become an issue.

20 Q. All right. Let's put up -- well, Mr. Bakewell did you
21 create some demonstratives to help explain your testimony to
22 the jury?

23 A. Yes, I did.

24 Q. Okay.

25 MS. BAILY: Let's put those up, please. Thank you.

1 **BY MS. BAILY:**

2 **Q.** I'd like to talk about your background. Who do you work
3 for?

4 **A.** I work for a firm called Kroll. We used to be named
5 Duff & Phelps.

6 **Q.** What does Kroll do?

7 **A.** We are a leader in terms of risk management and valuation
8 advisory services.

9 **Q.** And what do you do at Kroll?

10 **A.** I lead our intellectual property advisory services
11 practice, and I have some other leadership responsibilities in
12 the firm. I'm a managing director.

13 **Q.** And what's your area of expertise?

14 **A.** It's valuation of intellectual property and licensing.

15 **Q.** And how did you acquire that expertise?

16 **A.** It's really the culmination of my career. I've always
17 been interested in two things: Finance and information
18 technology. I studied both for both of my degrees, and I found
19 a way to combine those interests in my career. And I'll be
20 glad to talk about that in a minute if you like.

21 **Q.** Sure. First, you mentioned that you value intellectual
22 property. Can you explain what you mean by that?

23 **A.** Sure. So it can be for a lot of purposes. When companies
24 are engaged in licensing, sometimes they need help to
25 communicate with the other party or to figure some things out

1 in licensing discussions. That's one of the things that I do
2 as a consultant.

3 Sometimes for financial reporting, there's something
4 called purchase price allocations. When companies buy and sell
5 other companies, they have to allocate the value for accounting
6 purposes to intellectual property and other assets and
7 sometimes it's for business strategy purposes.

8 And then there's disputes, as we've seen in and are all
9 aware of, and sometimes damages are an issue, and I'll work on
10 that.

11 **Q.** Let's talk briefly about your educational background.
12 Could you describe that to the jury?

13 **A.** Sure. So I mentioned I have a two degrees. I have an
14 undergraduate degree, a Bachelor of Science degree, from a
15 college like smack dab in the middle of the country, Bradley
16 University. It's in Peoria, Illinois. And then I have a
17 graduate degree, an MBA, from the University of Maryland.
18 That's in finance and information systems.

19 **Q.** And in addition to your degrees, do you have any
20 professional certifications?

21 **A.** I do. I have two. You can see on this slide I have
22 something called an ASA, that stands for accredited senior
23 appraiser; and CLP, that's certified licensing professional.

24 **Q.** What does it take to become an ASA?

25 **A.** It takes a lot of work and continued work because I have

1 to meet continuing education requirements every year. The
2 thing that's the most memorable is you have to demonstrate
3 10,000 hours of experience in valuation. In my case, it's
4 valuation of intellectual property. You have to pass a series
5 of examinations, submit your work product to be reviewed on a
6 blind basis by your peers. It's a difficult one to obtain.

7 **Q.** You also mentioned that you're a certified licensing
8 professional. Is that something different?

9 **A.** That's something different. That's about licensing, the
10 type of licensing we've heard a little bit about over the last
11 couple of weeks, licensing of intellectual property rights.
12 And it's the same, it's a credential that requires me to stay
13 abreast of issues in the field and requires examinations to
14 acquire it as well.

15 **Q.** Have you received any awards or recognitions for your
16 work?

17 **A.** I do. Over the years, I've received -- I've received
18 several. I've been named one of the leading economic experts
19 in intellectual property for a decade or so.

20 **Q.** I'm not sure if you mentioned it. Have you actually
21 negotiated patent licenses?

22 **A.** So I have in a couple ways. My career, I've been working
23 now for longer than I like to admit, 30 years; and big chunk of
24 that, seven or eight, I spent in industry. I worked for a
25 company. We were making -- the company still makes, like,

1 clean energy products and technologies, and I worked for seven
2 or eight years on that developing our intellectual property
3 portfolio, developing our IP, building some businesses in that
4 space.

5 And then the other 20 or so years I've been in the
6 consulting space mostly doing intellectual property related
7 consulting.

8 Between undergraduate and graduate school, I actually
9 programmed computers. I worked on some cellular systems,
10 pretty early generation stuff.

11 So, as I said, I managed a way to kind of put all that
12 stuff together, and I think I have a really interesting job.

13 **Q.** Is your firm being compensated for your time here today?

14 **A.** It is.

15 **Q.** Does your compensation depend in any way on the outcome of
16 this case or on your opinions?

17 **A.** No.

18 **Q.** Let's turn to the work you did in this case.

19 What were you asked to do?

20 **A.** So I was asked to form my own independent opinions about
21 damages should you-all get to that question. I asked that
22 question. I have to make some assumptions hypothetically if
23 the patents are found to be valid and infringed.

24 And then we heard Mr. Malackowski testify, and I responded
25 to some of the information that he provided in his expert

1 reports.

2 Q. And were you here in the courtroom throughout trial?

3 A. Yes.

4 Q. Did you review written materials in coming up with your
5 views on this case?

6 A. Written materials, deposition testimony. We've seen --
7 I've reviewed a whole bunch of stuff, and I think we can see
8 just looking at some of the binders here that this process is
9 pretty data intensive.

10 Q. Did you interview anyone in connection with your work?

11 A. I did. I interviewed people from Google. Mr. Chan is an
12 example of that. Dr. Schonfeld is an example. Mr. MacKay I
13 interviewed. I also read deposition transcripts of witnesses
14 and people from Sonos.

15 Q. I think you already mentioned that for your work, you had
16 to assume that the patents are valid and infringed for all
17 purposes; is that right?

18 A. That's right. That's a requirement for this exercise.

19 Q. But you still realize that the jury is going to decide a
20 variety of issues related to infringement and invalidity;
21 right?

22 A. That's what I understand.

23 Q. What is your opinion on reasonable royalties for the '885
24 and '966 patents?

25 A. So there's a variety of evidence. I think the best

1 evidence is -- relates to something called noninfringing
2 alternatives, and we'll talk about that. I think that there's
3 some other information that provides context for that that
4 we'll talk about as well.

5 Q. I think you mentioned that you were here for
6 Mr. Malackowski's testimony?

7 A. Yes.

8 Q. And you might recall we just put an asterisk next to the
9 IFTTT analysis at that time. Do you recall that?

10 A. Yes, I do.

11 Q. Okay. So we're just going to put that to the side for now
12 and talk about some other things. All right?

13 A. That's fine with me.

14 Q. So I'd like to ask you about this hypothetical negotiation
15 that we heard about earlier. Is that something that you're
16 required to do when you quantify a reasonable royalty?

17 A. That's a requirement for determining a reasonable royalty.
18 It's a way of determining a reasonable royalty where you go
19 back in time hypothetically and try to determine what the
20 parties would have negotiated for a license that involves
21 specifically the technology at issue -- here, two patents --
22 that provides an amount that's adequate to compensate.

23 MS. BAILY: Let's go to the next slide.

24 BY MS. BAILY:

25 Q. What does this slide show?

1 **A.** So this is indicating the hypothetical negotiation or
2 negotiations that -- we can think of this as one negotiation or
3 two negotiations for each patent. The important thing is that
4 we keep in mind that we're valuing two patents. That's it.

5 And the date of first infringement for the '966 is alleged
6 to be November 2019. So that's where that analysis would
7 occur. And for the '885 it's November 20th, and that's where
8 that analysis would occur.

9 **MS. BAILY:** Let's go to the next slide.

10 **BY MS. BAILY:**

11 **Q.** Are there any other relevant dates that you considered in
12 the context of the hypothetical negotiation?

13 **A.** There are. I added three to this slide. So we've heard
14 about these. One is at the bottom, Sonos began practicing the
15 '885 and '966 in June of 2020. That kind of helps get our
16 bearings as to that. It went 15 years without practicing these
17 patents, which I think indicates that there's limited economic
18 value.

19 Google released the Chromecast in July 2013. That helps
20 explain that the date of first infringement here is when
21 patents issued, and I think that provides some context.

22 And then these patents are set to expire in
23 September 2027. So we'll talk a little bit about what that
24 means. A lump-sum type of license or royalty would provide an
25 amount through September 2027. A running royalty, the data

1 that's been available, is only for a short period of time. So
2 I think it's important that the jury keeps that in mind.

3 **Q.** And in the negotiation that we're discussing here, what
4 are the parties negotiating for?

5 **A.** They're negotiating for what's called a nonexclusive,
6 people call it a bare or a naked patent license. It's just for
7 patent rights, nothing else. And it's for either a lump-sum
8 amount through September 2027 or for the period from which
9 there's data that runs through November 2022 for the '966 and
10 September for the '885, September 2022.

11 **Q.** And we'll talk more about lump sum versus running royalty;
12 but just taking a step back, in negotiations like this, what
13 kinds of things do parties typically talk about?

14 **A.** So they'll talk about: What can I do instead? If they're
15 sitting down, like: Is there any other way that I can do --
16 get sort of the same benefits? Or if I take this technology
17 out, are my customers going to care? Is this something that is
18 really changing market share between the companies or driving
19 demand? That's going to be something that people would
20 discuss.

21 I think they'd want to know about the parties' licensing
22 history and if there's any licenses that are comparable and
23 what sort of insights you can gain from that information.

24 And those would be the -- those would be the primary
25 things.

1 Q. All right.

2 MS. BAILY: Let's go to the next slide.

3 BY MS. BAILY:

4 Q. Is there a way that you think about the types of evidence
5 that you just described that people consider in negotiations to
6 value patent rights?

7 A. Yes. So all the stuff I just discussed a moment ago, you
8 can think about it falling into three buckets and that's what I
9 have on the screen.

10 The cost approach, it's noninfringing alternatives; the
11 income approach, that's like economic analysis, does this -- is
12 this the kind of invention that causes more sales or changes in
13 market share or lost profits or things like that; and then the
14 market approach, can you look at things that are comparable,
15 other licenses to other patents, for example.

16 Q. We also have already heard a lot about the *Georgia-Pacific*
17 factors. Did you consider those?

18 A. That's right. There's 15 of those, and I considered them
19 all.

20 Q. Do we need to walk through all 15?

21 A. No. I think we're going to go through them all. I think
22 there's a way to discuss them in these three buckets; and at
23 the end, I'll kind of recap for you-all what -- what this
24 information means in terms of the GP factors. So we can just
25 wait to do that for the moment.

1 If we keep these three buckets in mind, I think it's a
2 good -- a good way to have some signposts and to cabin off some
3 of the data that we'll have.

4 **MS. BAILY:** Let's go to the next slide and start with
5 the first category, the cost approach.

6 **BY MS. BAILY:**

7 **Q.** Is this a category of information that parties consider
8 when negotiating patent licenses?

9 **A.** It is. This is noninfringing alternatives. It's --
10 there's a road sign there, and what I'm meaning to depict is we
11 have to, like, rewind and go back in time and imagine what
12 would have happened at the time of first alleged infringement,
13 so back in 2019 and 2020, and see if things could have gone in
14 a different direction. And if Google could say, "Well, we'll
15 just take our products in a different direction and that would
16 be that."

17 **Q.** And in your experience, are noninfringing alternatives
18 something that parties in the real world actually consider in
19 licensing negotiations?

20 **A.** Yes, for sure, in the way that I just discussed.

21 **Q.** Did you analyze noninfringing alternatives in this case?

22 **A.** I did.

23 **MS. BAILY:** Let's skip the next slide and just go to
24 DDX12.8.

25 (Pause in proceedings.)

1 **MS. BAILY:** 12.7. There we go.

2 **BY MS. BAILY:**

3 **Q.** What did you find when you considered noninfringing
4 alternatives?

5 **A.** So this case is a little bit unusual and interesting in
6 that Google actually implemented a redesign, and we have to
7 think about that redesign having occurred back a few years ago
8 instead.

9 I think the redesign, because it's oriented around the
10 claims of a patent, it's a way, from my perspective -- I'm not
11 a technical expert, I'm a damages and economic expert -- I can
12 see how this invention sort of shows up commercially and what
13 you need to do in practical terms and if it changes the
14 products in a way that affects consumers.

15 That's the first bullet. It's, like, I'm trying to
16 describe there that it's a way to figure out what the
17 boundaries are of the patents from an economic perspective.

18 **Q.** What else did you consider in the context of noninfringing
19 alternatives?

20 **A.** So whether or not they would be commercially acceptable.
21 And my understanding is that from an economic point of view, at
22 least in my field, what you're interested in is seeing if
23 there's a change, if there's going to be an impact from making
24 that change, and that's what commercial acceptability means to
25 me.

1 Q. And then you have two other bullets on this slide. What
2 are those referencing?

3 A. Yeah. So there is real-world evidence that we've seen.
4 There's been a design change. We heard Mr. MacKay and Mr. Chan
5 just a moment before me talk about what happened and that
6 consumers haven't noticed or, you know, pitched a fuss over it.

7 And the last bullet is that in Mr. Malackowski's analysis,
8 he didn't consider noninfringing alternatives at all.

9 MS. CARIDIS: Your Honor, I have to object to that
10 last answer. Mr. Bakewell is going outside the scope of his
11 report. His report did not talk about the functionality that
12 was implemented as described by Mr. MacKay and Mr. Chan in
13 their testimony. And I would direct Your Honor to page 160 of
14 Mr. Bakewell's report.

15 THE COURT: Is that true?

16 MS. BAILY: I believe that Mr. Bakewell talked about
17 the commercial acceptability of the alternative. Now, I don't
18 know the relevant dates of how much information he had.

19 THE COURT: But his report probably doesn't refer to
20 this testimony that we only recently received.

21 MS. BAILY: It surely does not talk about the trial
22 testimony, and we can avoid that.

23 THE COURT: All right. Well --

24 MS. CARIDIS: Nor does it talk about the alternative
25 that Mr. Bakewell relied on.

1 **MS. BAILY:** It does talk about two alternatives, the
2 no standalone mode alternative and additional context for that
3 with respect to taking out overlapping speaker groups
4 altogether.

5 **THE COURT:** Well, stick to what's in the report. Do
6 not embellish with new information that wasn't available at the
7 time of the report.

8 However, if on cross-examination, you open the door, he
9 can walk right through and lay all of this before the jury.
10 That's the way I handle it.

11 So stick to the report. Do not on direct examination get
12 into Mr. Chan and Mr. MacKay.

13 **MS. BAILY:** Thank you, Your Honor.

14 **BY MS. BAILY:**

15 **Q.** Mr. Bakewell, did you consider the impact of noninfringing
16 alternatives on damages in this case?

17 **A.** I did.

18 **Q.** And what specifically did you consider?

19 **A.** So I considered that there were two alternatives, and I
20 evaluated what the cost of those would be and, if I recall
21 correctly from my report, what they were, those costs, because
22 it was implemented before my report was issued; and then I
23 considered the evidence about commercial acceptability.

24 **Q.** And one of the alternatives that you discussed in your
25 report is the no standalone noninfringing alternative. Do you

1 recall that?

2 A. That's right.

3 Q. And did you find that that was technically feasible?

4 A. So I interviewed Dr. Schonfeld about that, and I
5 understand that it is technically feasible. In my report I
6 interviewed Mr. MacKay and I considered that as well.

7 Q. And what about economic comparability with respect to the
8 no standalone noninfringing alternative?

9 A. Yes, so I interviewed Mr. MacKay about that as well and
10 wrote about that in my report. I also considered a variety of
11 evidence, deposition testimony, other surveys in this case that
12 relate to the products overall. Those indicated that this
13 wouldn't be a change that consumers would notice.

14 There's usage and other economic data that I considered.
15 So it kind of overlaps with the income approach, and we'll get
16 to that. That category of information we can think of as
17 falling in that bucket, but there's economic evidence that
18 shows that this change -- or these changes are commercially
19 acceptable.

20 Q. And did you come to a conclusion about the costs
21 associated with implementing the no standalone noninfringing
22 alternative?

23 A. Yes.

24 Q. And what were your conclusions in that regard?

25 A. \$200,000 is the cost for rolling that change out,

1 including the testing changes, the testing process as well as
2 Mr. MacKay's time.

3 **Q.** Does this cost relate to both of the patents in suit?

4 **A.** Yes. This would be a cost that would -- you can think
5 about it as relating to either or both of the patents in suit.
6 We heard -- or I wrote about in my report that this could --
7 would apply to both. That's what I understand from
8 Dr. Schonfeld.

9 **Q.** Did you also consider what would have happened if Google
10 removed overlapping groups altogether?

11 **A.** Yes. That was another noninfringement alternative that I
12 considered.

13 **Q.** And what did you conclude and how did you use that in your
14 analysis?

15 **A.** So the cost of that would be similar if not the same. My
16 understanding is that it would just require a small change in
17 the code, and the evidence that I've seen from an economic
18 point of view and what Mr. MacKay told me when I interviewed
19 him was that it would be commercially acceptable.

20 **Q.** So going back to the hypothetical negotiation that the
21 jury has to consider, do noninfringing alternatives provide a
22 relevant data point in your view?

23 **A.** They do. They provide a relevant data point.

24 **Q.** Now, you've mentioned a bit about the differences between
25 lump sum and running royalty payments; right?

1 **A.** Yes.

2 **Q.** Can you briefly go over those concepts for the jury?

3 **A.** Sure. So a lump sum is a one-time payment. It's like a
4 cash on the barrelhead. You pay somebody in a license and then
5 you agree to just go on and there's no ongoing payments, and it
6 relates usually to the term of the patents when they're set to
7 expire. That's a lump sum.

8 The other big category is running royalties. Those can be
9 a variety of forms, like per unit would be one, and they go on
10 for whatever the -- is agreed in the license. It could be for
11 a certain period of time, as is the case here, or for the
12 entirety of the patent life.

13 And there you have to count up the number of units and
14 apply a royalty rate if it's a per-unit rate. That's a running
15 royalty.

16 **Q.** And do noninfringing alternatives impact the form of the
17 royalty payment in your view?

18 **A.** They do generally. Sometimes there's a change and there's
19 like an ongoing payment associated with the change. Here, the
20 change for the one-time cost, that there's no evidence that
21 there's an ongoing impact that you'd have to quantify. So what
22 that shows is that this case, the noninfringing alternative,
23 indicates that the form of a reasonable royalty would be a lump
24 sum.

25 **MS. BAILY:** Let's go to DDX12.9.

1 **BY MS. BAILY:**

2 **Q.** So you also considered the income approach; is that right?

3 **A.** This is the income approach. It also relates to
4 commercial acceptability of noninfringing alternatives.

5 **Q.** And what are you conveying with this bar graph here?

6 **A.** Yes, this is like a spreadsheet that the numbers go up
7 here on the bar. It's -- what you're looking for is to see if,
8 hey, there's any impact from this technology, does it cause to
9 be further additional sales, is there any demand that relates
10 to the -- the technology to the two patents, are there any
11 changes in market share that's specific to these two patents.
12 That's what I'm showing there.

13 **Q.** And did you conduct this type of analysis in this case?

14 **A.** I did.

15 **Q.** What did you find?

16 **A.** So these are very specific patents that relate to very
17 specific features that -- just overlapping groups of speakers;
18 and I found that not many, if any, consumers are affected by
19 this or utilize this feature, and the parties don't use the --
20 that specific functionality to compete with one another.

21 **Q.** Did you review usage data in this case?

22 **A.** I did.

23 **MS. BAILY:** Let's go to slide 12.10.

24 **BY MS. BAILY:**

25 **Q.** Is usage a *Georgia-Pacific* factor?

1 **A.** It is. This is *Georgia-Pacific* Factor 11, and the second
2 part of it I think is in cases like this and I think generally
3 pretty important. It says so you want to look at the extent to
4 which the infringer has made use of the invention; and then the
5 second part is, and any evidence probative of the value of that
6 use. That's the type of stuff that I just talked about, like
7 are there changes in market share that are attributable to
8 the -- specifically to those two patents that we talked about.

9 **MS. BAILY:** Let's go to the next slide.

10 **BY MS. BAILY:**

11 **Q.** Is this a summary of some of the usage data that you
12 looked at in this case?

13 **A.** Yes. This summarizes the usage data. There's -- we've
14 heard there -- I've reviewed evidence about devices in a group
15 that's collected measuring devices in a group on a daily basis.
16 That's less than one half of 1 percent. There's data that
17 Google has and was produced in this case that relates to
18 devices in a group over a month, 30-day devices in a group.
19 That's less than 3 percent.

20 And then the bottom -- should I go on to that?

21 **Q.** Sure?

22 **A.** The bottom is devices that joined a static group on a
23 daily basis. So there's information about devices that joined
24 a group and four specific commands that can be used to join a
25 group that I reviewed.

1 The static grouping that I understand is at issue in this
2 case relates to only a fraction of that grouping, and that
3 number is 0.022 percent. So all this information shows that in
4 terms of using grouping of speakers and static commands in
5 particular, those numbers are low.

6 And what we have to think about in this case is we're
7 talking about even a subset of this. We're talking about these
8 two patents and overlapping groups. So those numbers are going
9 to be lower than these that are even shown on the screen.

10 **MS. BAILY:** Let's go to DDX12.12.

11 **BY MS. BAILY:**

12 **Q.** What is this slide showing us?

13 **A.** This is the market approach. I'm showing a house here.
14 The idea with this approach is you consider comparable sales,
15 or if you're renting comparable leasing provides prices for
16 homes. Not every home is going to be exactly the same, and you
17 want to see if you can make adjustments for any differences or
18 if you can take anything away from looking at comparables.

19 **Q.** And in connection with the market approach, did you look
20 at any patent agreements in this case?

21 **A.** I looked at a bunch of patent agreements that were
22 produced in this case. There's a bunch of licenses.

23 **Q.** And what did you find?

24 **A.** So a couple of things. There's a lot of lump-sum
25 agreements so that I think that is consistent with the evidence

1 I've reviewed regarding noninfringing alternatives and demand.
2 It's also consistent with my experience in technology space.
3 There's a lot of lump-sum agreements.

4 And there's some agreements that involve lots of patents,
5 like thousands of patents, and then there's a lot of agreements
6 that are more narrow; and there's one that we heard about, this
7 Outland agreement that involves comparable patent rights that
8 tells us a little bit more about kind of comparable agreements.

9 **Q.** Could you give us a brief overview of the Outland Research
10 agreement?

11 **A.** So that's an agreement that involved, I think, 12 patents,
12 4 patent applications. It was in 2011, and the amount was
13 \$2.25 million. It was a lump-sum agreement.

14 **Q.** Okay.

15 **MS. BAILY:** Let's just pull that up. It's TX6016
16 already in evidence.

17 **BY MS. BAILY:**

18 **Q.** And was the Outland Research agreement a license agreement
19 or a patent purchase agreement?

20 **A.** This one was a purchase. It was a purchase only of patent
21 rights.

22 **Q.** And how does it being a patent purchase agreement affect
23 your analysis since the agreement in this case would be a
24 license agreement?

25 **A.** So we use this phrase in finance and economics called

1 "holding all else equal." So holding everything equal, if you
2 buy a patent that's more valuable than if you license a patent.
3 If you take a nonexclusive license, other people can use that
4 asset. If you buy a patent, you get to control it. It's like
5 if you buy a house, there's more value to that than if you're
6 renting a house.

7 So we have to keep that in mind when we're looking at this
8 agreement. It's a purchase and, therefore, more valuable
9 than -- holding all else equal, than this hypothetical license
10 or these two hypothetical licenses.

11 Q. All right. Let's just look quickly at the payment term,
12 which is Section 3.4 on page 3.

13 How much did Google pay pursuant to this agreement?

14 A. 2.25 million.

15 Q. And what was the form of the payment?

16 A. It was a lump sum.

17 Q. Now I think we heard from Mr. Malackowski that
18 Outland Research is a nonpracticing entity. Do you recall
19 that?

20 A. I do.

21 Q. Is Outland Research a nonpracticing entity?

22 A. It is.

23 Q. And what does that mean to you?

24 A. So it just means it doesn't practice its patent rights.

25 That's what "nonpracticing entity" means.

1 Q. All right. Is the agreement that we're looking at here
2 still informative even though Outland Research is a
3 nonpracticing entity?

4 A. I think it is. You know, Sonos for 15 years didn't
5 practice these two patents; and so in that way, Sonos wasn't
6 practicing for a long period of time.

7 And then I think what I'm the most interested in is if
8 these are the types of patents that are really going to move
9 the needle in terms of selling products or creating demand and,
10 like, if somebody has them that might compete a little bit,
11 whether or not it's being used to compete.

12 Q. Did the term of the Outland agreement differ from the term
13 of the hypothetical license?

14 A. It was when you -- when you buy a patent, you get it for
15 its life. And here, Google bought a bunch of patents for the
16 lives of the patents and it's much longer than the hypothetical
17 licenses either if they're a lump sum or if they're just for a
18 short period of time.

19 I think I have a slide that illustrates that.

20 Q. Yeah.

21 MS. BAILY: Let's bring up 12.13.

22 (Pause in proceedings.)

23 THE WITNESS: Do you want me to go -- I'd be happy to
24 describe it.

25 \\\

1 **BY MS. BAILY:**

2 **Q.** Yeah. I didn't realize it was up.

3 So what does this slide show?

4 **A.** So at the top the Outland agreement, it probably relates
5 to a longer period of time. I took one of the comparable
6 patents and used that as the ending date. I went from
7 July 2011 through January 2027 and drew that black line.

8 And then we have these hypothetical licenses -- I'm
9 assuming they're lump sums -- for the entire life of these
10 patents. So for the '885, the license would be from
11 November 2020 until September 2027 when the '885 is set to
12 expire. That's like less than half of the total time period
13 that the Outland agreement relates to. So in that way the
14 Outland agreement is more valuable.

15 And the same for the '966. Although the dates are a
16 little bit different, that hypothetical negotiation would be in
17 November 2019. If it's a lump sum, it would go through
18 September 2027. That's a shorter period of time than the
19 Outland agreement relates to. So in that way, holding all else
20 equal, the Outland agreement is more valuable.

21 **Q.** And so just taking a step back, what in your view does the
22 Outland agreement bring to your analysis of a hypothetical
23 negotiation in this case?

24 **A.** So it says that lump sum is a form that's appropriate. It
25 sort of is in the same ballpark as noninfringing alternatives.

1 And I think what also -- we'll talk about this, I think,
2 in a moment because we -- and I reviewed in my report other
3 licenses that were portfolio licenses to thousands of patents.

4 I think this license is instructive because it allows you
5 to kind of narrow down from licenses with -- with a thousand
6 patents; that here we're focusing in on a narrower set of
7 patent rights that relate to very specific features, and so
8 it's a little more granular in that way.

9 **Q.** All right. Well, let's talk about the Sonos licenses in
10 this case. I think you sort of vaguely referenced those.

11 **MS. BAILY:** Let's bring up DDX12.14.

12 **BY MS. BAILY:**

13 **Q.** Do we know the total amounts that Sonos has been paid
14 under its portfolio licenses?

15 **A.** We do. So for two of them we have royalty reports; and
16 for the third one, the Denon agreement, that one was a lump
17 sum. It was for \$10 million for a period of time and for a
18 thousand patents or so we heard about and I reviewed the
19 agreement and wrote this in my report.

20 And then these are the royalty reports for a summary of
21 them from Lenbrook, which was called Bluesound, the products
22 are sold as Bluesound; and Legrand, which is also called
23 Pass & Seymour. The total payments there are at the bottom of
24 this slide. The royalty payments were live for Lenbrook were
25 about one and a half million dollars of which half, 780,000

1 were in the U.S. and Legrand is about \$200,000. A little bit
2 more. A little less than \$300,000 for both.

3 Q. And how many patents approximately did these Sonos
4 licenses cover?

5 A. Like a thousand depending upon what timeframe you measure.
6 Sometimes more, sometimes a little less.

7 Q. And when you were putting your opinion together, were you
8 aware of any evidence that would lead you to conclude that the
9 patents at issue here drove the value associated with these
10 licenses?

11 A. We haven't seen evidence like that.

12 Q. And so how do these licenses impact your assessment of the
13 hypothetical negotiation?

14 A. Well, we -- we know that -- that Sonos is open to the idea
15 of a lump sum. There's one lump-sum agreement. And these are
16 for many, many patents, many more than is at issue in the
17 hypothetical license.

18 And I think, you know, comparing this or considering
19 Outland together with this and noninfringing alternatives,
20 maybe in that order, allows you to kind of isolate in and focus
21 in on these two patents relative to the big portfolio licenses
22 that were entered into that we've seen that Sonos produced.

23 Q. During this trial -- well, strike that.

24 Did you do any analysis in connection with coming up with
25 your opinions about whether Google and Sonos are competitors?

1 A. I did.

2 Q. And can you explain your thoughts on whether Google and
3 Sonos are competitors and to what degree?

4 A. So they compete in some ways, but I think the competition
5 needs to be kept in perspective. It relates to specific
6 products and specific circumstances.

7 And even then, these patents aren't really used to compete
8 or move market share. So when we talk about competition, I
9 think we have to keep in context what that competition actually
10 means.

11 Q. And how, if at all, did that impact your analysis in this
12 case?

13 A. Well, we want to focus in on these two patents and what
14 they mean for competition, and these are patents that relate to
15 very specific features of which there's many in these products,
16 like countless features; and these just -- these are not the
17 type of patents that really have a significant impact. When we
18 focus in on overlapping speaker groups, it's not the type of
19 technology that has an impact in terms of competition in a
20 major way.

21 Q. All right.

22 MS. BAILY: Let's put up DDX12.17.

23 BY MS. BAILY:

24 Q. Near the start of your testimony you talked about circling
25 back to the *Georgia-Pacific* factors. Can you just briefly

1 describe what this slide shows? How did Factors 1 and 2 come
2 into your analysis?

3 **A.** Sure. So 1 and 2 relate to comparable agreements, and
4 we've talked about those. Remember, I said we would talk about
5 them as we go. The good news here is that we've already talked
6 about those; and when you read *Georgia-Pacific* Factors 1 and 2,
7 it relates to the types of agreements we were just talking
8 about.

9 **Q.** And how about Factor 3?

10 **A.** Factor 3 is the nature and the scope of the license. We
11 talked about lump sum versus running royalties and the fact
12 that this is a bare -- or these are, whichever way you look at
13 it, bare patent licenses that relate to only one or two patents
14 in a space where there's literally -- we know there's over a
15 thousand patents and there's a lot more than that actually. So
16 this nonexclusive bare patent license concept is important.

17 **Q.** And how did Factor 5 influence your analysis?

18 **A.** We just talked about competition. There's competition,
19 but we've to keep it in context.

20 **Q.** How about Factors 9 and 10? How did those impact your
21 analysis?

22 **A.** This is where noninfringing alternatives comes into play.
23 Also, we've heard about the prior art. There's other ways of
24 doing things; and these two patents, we have to consider their
25 incremental contribution over the prior art. And that's what's

1 described in Factors 9 and 10, and one way to look at that is
2 through noninfringing alternatives.

3 **Q.** And how did Factor 11 influence your opinions?

4 **A.** We had a slide on this. I just summarized it as usage.
5 It's evidence probative of value of the use.

6 **Q.** And, finally, Factor 13, did that come into account when
7 you were coming up with your views on the patents?

8 **A.** This is a space where there's lots of patents, there's
9 lots of features, and we've got to make sure we're valuing only
10 these two patents, nonexclusive license, naked license to only
11 two patents: The '885 and the '966.

12 **Q.** And what do all the data points that we've talked about
13 here today mean for your final opinion on what a reasonable
14 royalty would be in this case?

15 **A.** Well, they all explain why the hypothetical licenses
16 should be lump sums; and the amount of noninfringing
17 alternatives is it's one data point and it's instructive and
18 it, I think, provides some indication of the value and what the
19 parties would negotiate in a hypothetical license.

20 **Q.** And so in conclusion, what is your opinion regarding the
21 reasonable royalty that would come into play in this case?

22 **A.** It's a lump sum. It's ultimately up to the folks on the
23 jury to make that determination. We've covered evidence of
24 data points that are -- range from 200,000 to \$2.2 million.

25 **Q.** Thank you.

1 **MS. BAILY:** Pass the witness.

2 **THE COURT:** Thank you.

3 **MS. CARIDIS:** Your Honor, do you want to continue
4 through or do you want to take a break?

5 **THE COURT:** Huh?

6 **MS. CURTIS:** Would you like to continue now or would
7 you like to take a break?

8 **THE COURT:** Well, we can take our break now. Let's
9 take it now.

10 Please remember the admonition. We'll give the lawyers a
11 chance to set up.

12 So 15 minutes. Thank you.

13 **THE CLERK:** All rise for the jury.

14 (Proceedings were heard outside the presence of the jury:)

15 **THE CLERK:** Court is in recess.

16 (Recess taken at 11:47 a.m.)

17 (Proceedings resumed at 11:54 p.m.)

18 (Proceedings were heard out of the presence of the jury:)

19 **THE COURT:** I want to raise a question about the
20 instructions with the lawyers right now before we bring the
21 jury back.

22 Ready? Here is my question: In doing the verdict form, I
23 see no point in trying to get the jury to answer a question
24 about indirect infringement.

25 I think the case has been tried on the basis of these two

1 products either infringe or they don't, and we don't have to
2 get into somebody in Perth Amboy, New Jersey, who's loading it
3 down to each individual person and how many people have loaded
4 it down.

5 It seems to me there ought to be a way for you-all to
6 agree on how that point is presented to the jury without
7 burdening them with the idea of indirect infringement or, for
8 that matter, contributory infringement. Do you see what I'm
9 getting at?

10 **MR. PAK:** Yes, Your Honor.

11 **THE COURT:** Can't you solve this problem? Why do you
12 have to make it so difficult for the poor jury in the -- and
13 for me? You're going to wind up getting instructions that you
14 don't like and wind up getting instructions that you feel like
15 you don't have enough time to complain about because you've
16 made it so complicated for me to present it to the jury. We're
17 going to -- you know, we got -- today is Wednesday. We're
18 going to argue it on Friday morning, and I can't be here
19 tomorrow afternoon.

20 So can you -- can you agree with me that we just leave
21 that out?

22 **MS. CARIDIS:** Your Honor, I think we need to confer
23 internally, but let's -- Mr. Pak and our team will chat and, we
24 can get back to you and see if we can simplify some things.

25 **THE COURT:** That's good to hear.

1 Let's see what else I got.

2 All right. That's the -- that would -- I'm hoping -- I
3 don't know, this is a big hope, because we've been working hard
4 on it -- that I can give you a version of a verdict form. I'm
5 trying to make it so that it doesn't look like an internal
6 revenue form, and that's hard to do because you've got so many.

7 So if you would just eliminate a lot of these claims in
8 the '966 and say it all turned on claim 1 -- I don't know. I
9 understand why you might want to keep them for validity
10 purposes, but --

11 **MR. PAK:** Your Honor, we've already offered that.

12 **THE COURT:** It's so much extra work. It's so much
13 extra work for the jury, and it's so much extra work for us
14 because we've got to tee it up in a way that logically flows.

15 **MR. PAK:** Yes. We've offered that as a possibility to
16 just try claim 1 of the '966 as a representative claim, and
17 we'll discuss it further and see if we can reach agreement on
18 that as well, Your Honor.

19 **THE COURT:** Well, maybe you pick one of the '966 that
20 has the most number of elements -- limitations so that you
21 don't -- and then just stipulate that -- I don't know. Please
22 help me out.

23 **MR. PAK:** We will work on it, Your Honor.

24 **THE COURT:** Okay. Let's bring back the witness and
25 bring back the jury.

1 (Pause in proceedings.)

2 **THE COURT:** By the way Google, is over 800 minutes
3 now.

4 **MR. PAK:** We're fully aware, Your Honor. We're on
5 target.

6 **THE COURT:** Good. I hope so.

7 Okay. You can -- then I haven't done the math for
8 Plaintiff, but you have more time left.

9 (Pause in proceedings.)

10 **THE COURT:** How much on cross do you have?

11 **MS. CARIDIS:** I'm hoping less than 15 minutes,
12 Your Honor.

13 **THE COURT:** Can we start on your rebuttal case?

14 **MS. CARIDIS:** Yes, Your Honor. Mr. Almeroth is ready
15 to take the stand.

16 **THE COURT:** Did I excuse him before or does he need to
17 be re-sworn? I don't remember how I left it. Can -- I can
18 just admonish him if you both stipulate that he's still under
19 oath and then save some time. Is that all right with Google?

20 **MR. PAK:** Yes, Your Honor.

21 **THE COURT:** All right. You too?

22 **MS. CARIDIS:** Yes, Your Honor.

23 **THE CLERK:** All rise for the jury.

24 (Proceedings were heard in the presence of the jury:)

25 **THE COURT:** Okay. Be seated.

1 And before we get started with cross-examination, I've got
2 a point I want to bring up to tell you where we are.

3 We are getting close to the end of the evidence, but we
4 won't finish it today. We will finish it probably tomorrow
5 morning before 1:00 o'clock. In fact, I would say well before
6 1:00 o'clock, but we will not argue the case tomorrow to you
7 because I need to spend some time with the lawyers working on
8 jury instructions to give them a chance to improve upon what
9 I've been drafting.

10 Now, however, right now I would say the case is going to
11 go to you for argument and deliberations on Friday. However,
12 because it will be going to you for deliberations, usually
13 juries will decide -- this is up to you, you, the jury are the
14 statutory body and you are the ones that get to decide, but
15 many jurors like to stay as late as possible on a Friday and
16 decide the case. You don't have to. It's up to you.

17 You can stop at 1:00 o'clock. You can stop at
18 3:00 o'clock. You can stop at 7:00 o'clock or 10:00 o'clock.
19 It's up to you. We decide -- you decide and we stay here and
20 conform to your -- so you might want to think about today, not
21 among yourselves yet, but think about your own schedule on
22 Friday to see if you -- how late -- you might wind up having a
23 doctor's appointment at 2:00 o'clock on Friday and can't do it,
24 and that's fine. It has to be everybody.

25 So -- but sometimes jurors can work it out so that they

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1 can stay. And then tomorrow I'm going to let you discuss just
2 your schedule among -- so you can discuss not the merits of the
3 case, but what your timetable is going to be on Friday.

4 Is there any objection to that part?

5 **MR. PAK:** No objection.

6 **THE COURT:** Okay. All right. Keeping in mind that if
7 you don't reach a verdict on that -- on Friday, then I think we
8 are coming back when? The next Friday?

9 **MS. CARIDIS:** Friday the 26th, Your Honor.

10 **THE COURT:** So it would be a week later. So you could
11 get a start on it, but you wouldn't -- so that is the -- that
12 is the -- I'm looking ahead here to see how this is going to
13 work out.

14 So just think about overnight what your -- what you -- how
15 late you can stay on Friday, two days from now.

16 All right. Ms. Caridis, your turn to ask questions.

17 **MS. CARIDIS:** Thank you, Your Honor.

18 **CROSS-EXAMINATION**

19 **BY MS. CARIDIS:**

20 **Q.** Good morning, Mr. Bakewell.

21 **A.** Good morning.

22 **MS. CARIDIS:** Your Honor, permission to approach the
23 witness?

24 **THE COURT:** Of course.

25 **THE WITNESS:** Thank you.

(Pause in proceedings.)

BY MS. CARIDIS:

Q. Mr. Bakewell, I believe that you discussed this with Google's Counsel, but just so we're all on the same page, your task in this case was to assume that Google was liable for infringement of the '966 patent and the '885 patent; correct?

A. Yes.

Q. So those are valid and infringed patents as far as you're concerned; correct?

A. Assumed, correct.

Q. And in your opinion, the damages that Google should pay for infringing the '885 patent is less than \$200,000; correct?

A. I think that's the best evidence. There's some other evidence that we talked about, but that's I think the best data point we have.

Q. And in your opinion, the damages that Google should pay for infringing the '966 patent is also less than \$200,000; correct?

A. I think that's the best data point of all the information that we have.

Q. Now, you submitted two damages reports in this case; correct?

A. Um, I did submit two reports. I don't know if the characterization in this case, but I did submit two reports.

Q. And in your first damages report, you said that the

1 damages for the '885 patent should be no more than \$5,000;
2 correct?

3 **A.** I did. I would consider that to be in a different case --
4 or a different phase of the case, but I did, that's correct.

5 **Q.** But that was still your opinion about the '885 patent;
6 correct?

7 **A.** At the time.

8 **Q.** Now, at the time of your deposition, your firm had accrued
9 around \$1.4 million of invoices to Google for your work in this
10 case; correct?

11 **A.** No, not in this case. It was in multiple cases. There's
12 been -- there's been -- I don't know how much I can talk about
13 it, but that's in more than this case.

14 **Q.** You recall being deposed prior to your testimony today;
15 correct?

16 **A.** Yes.

17 **MS. CARIDIS:** And I will read into the record
18 Mr. Bakewell's deposition at line 75 -- strike that -- at
19 page 75, line 23, to page 76, line 2 (as read):

20 **"QUESTION:** So you have billed Google \$1.4 million for
21 your work on this case so far?

22 **"ANSWER:** I don't know how much of that has actually been
23 billed. I'd check but that's kind of what's been
24 accrued."

25 \\\

1 BY MS. CARIDIS:

2 Q. That was your testimony; correct, Mr. Bakewell?

3 A. That's part of my testimony, yes.

4 Q. Okay. And you understand that the accused products in
5 this case for the '885 patent are Google's audio players;
6 correct?

7 A. Yes.

8 Q. And you also understand that the accused products for the
9 '966 patent are computing devices like smartphones with the
10 Google Home app; correct?

11 A. Generally, yes, I'd agree.

12 Q. And those are different products; correct?

13 A. Um, do you mean between the '885 and '966?

14 Q. I mean --

15 A. Is that what you're asking? I didn't follow exactly your
16 question.

17 Q. Sure.

18 Google's audio players that are accused of infringing the
19 '885 patent are different from computing devices like
20 smartphones with the Google Home app, which are accused of
21 infringing the '966 patent; correct?

22 A. Sort of in a plain way, yes, not -- there's some ways
23 where the answer might be no; but in a plain way, yes.

24 Q. If I buy a speaker, I don't get a smartphone for free;
25 correct?

1 A. True.

2 Q. And you understand that the law requires an infringer to
3 compensate the patentee in no event less than a reasonable
4 royalty for the use made of the invention by the infringer;
5 correct?

6 A. Correct.

7 Q. So following that, if the accused Google audio products
8 are found to infringe a valid claim of the '885 patent, Sonos
9 would be entitled to at least a reasonable royalty for that
10 infringement; correct?

11 A. Specifically for that patent, that's correct.

12 Q. And you understand that the Court has already determined
13 that Google's audio products infringe claim 1 of the '885
14 patent; correct?

15 A. Yes.

16 Q. And if Google's Home app installed on a smartphone is
17 found to infringe a valid claim of the '966 patent, Sonos would
18 be entitled to at least a reasonable royalty for that
19 infringement as well; correct?

20 A. Yes.

21 Q. Now, you spoke briefly with Google's Counsel about the
22 cost approach; correct?

23 A. I did.

24 Q. And so at least part of your analysis in this case, part
25 of your opinions, is based on the cost of Google's alleged

1 noninfringing alternatives; correct?

2 A. True.

3 Q. And you rely on Dr. Schonfeld to identify whether any
4 alternatives are actually noninfringing; correct?

5 A. In part.

6 Q. You aren't here to provide any opinions as to whether any
7 of Google's proposed noninfringing alternatives are, in fact,
8 noninfringing; correct?

9 A. That's true.

10 Q. If the jury determines that those alleged alternatives are
11 either not acceptable or still infringe the asserted patents
12 here, the cost of those alternatives would not be relevant to
13 the damages in this case; correct?

14 A. I disagree, and I'd be glad to explain.

15 Q. We can get into why you would think that would not be the
16 case on your redirect if you'd like.

17 So, Mr. Bakewell, your report discusses an alleged
18 noninfringing alternative -- actually pause.

19 MS. CARIDIS: Mr. Jay, can we get up paragraph 451 of
20 Mr. Bakewell's January 13 report and include the header there?
21 Great.

22 BY MS. CARIDIS:

23 Q. This is a copy or at least a snippet of your report;
24 correct, Mr. Bakewell?

25 A. It appears to be, yes.

1 Q. And your report discusses an alleged noninfringing
2 alternative of when an accused standalone speaker is added to a
3 target group, it matches the music or silence of the target
4 group? Did I read that properly?

5 A. Yes.

6 Q. And you sat through the testimony of Dr. Schonfeld
7 yesterday and today, sir; correct?

8 A. I did.

9 Q. And Dr. Schonfeld didn't discuss any alleged alternatives
10 about matching the states of a target group; correct?

11 A. I disagree. He spoke about the technology sort of deeper
12 in; and as I understand it, he was talking about this
13 noninfringing alternative.

14 Q. So if you were mistaken and he wasn't actually talking
15 about this noninfringing alternative, then you would have no
16 evidence in the record here about whether or not that
17 alternative infringes; correct?

18 A. No, I disagree, because I considered a second
19 noninfringing alternative that's broader, if you will, and it
20 would capture different sort of flavors or variances of this
21 particular noninfringing alternative.

22 Q. Did you hear Mr. Schonfeld testify about that alleged
23 noninfringing alternative?

24 A. Um, sort of, yes, I did. Not like in a specific category;
25 but his testimony, from my perspective, related to how the

1 technology works and how one would go about not including the
2 overlapping speaker groups.

3 **Q.** Okay. Let's focus on the word "standalone" here in this
4 noninfringing alternative that we have on the screen.

5 Mr. Bakewell, your understanding is that standalone mode
6 refers to a speaker acting as an individual speaker whether it
7 is playing music or not playing music; correct?

8 **A.** Um, we've heard a lot about the technology. I'm not sure
9 where you -- where you get that and how that would fit in with
10 the technical part of the case.

11 **Q.** Sure.

12 **MS. CARIDIS:** Mr. Jay, let's pull up paragraph 85 of
13 Mr. Bakewell's rebuttal report.

14 **BY MS. CARIDIS:**

15 **Q.** And reading from that bullet point -- first of all, this
16 is your report; correct?

17 **A.** It appears to be.

18 **Q.** And you write (as read):

19 "Claim 1 also requires speaker 1 to stay in a
20 standalone mode even after being added to the two speaker
21 groups. In other words, I understand that speaker 1 will
22 continue to act as an individual speaker, i.e., either
23 playing music or not playing music, despite being grouped
24 together with speaker 2 and 3."

25 You wrote that, sir; correct?

1 A. I did.

2 Q. So it is your understanding that a speaker in standalone
3 mode can either be playing music or not playing music; correct?

4 A. I'd have to see what I wrote and I'd have to check with a
5 technical expert as to exactly what that means.

6 Q. Okay.

7 MS. CARIDIS: I will read into the record an excerpt
8 of Mr. Bakewell's deposition starting at page 99, line 20,
9 continuing to page 100, line 2 (as read):

10 "QUESTION: Is it your understanding that standalone mode
11 does not require playing music?

12 "ANSWER: Does not require playing music? So this comes
13 from Dr. Schonfeld, so my understanding, I think that's
14 part of what you are implying with your question, but it
15 says the opposite here; i.e., either play music or not
16 playing music."

17 THE COURT: Okay. That's evidence in the case. It
18 was read by Counsel; but when they read it exactly from a
19 deposition, that's evidence in the case.

20 Go ahead.

21 BY MS. CARIDIS:

22 Q. And, Mr. Bakewell, you understand that standalone mode
23 means that a first speaker will continue to act as an
24 individual speaker despite being grouped together with second
25 and third speakers; correct?

1 **A.** I'd have to check with a technical expert. That's a part
2 of my report where I was summarizing interviews, and I'd have
3 to read the whole part of my report as well.

4 **Q.** Okay.

5 **MS. CARIDIS:** I will read into the record an excerpt
6 from the Bakewell deposition page 101, line 18, to page 102,
7 line 1 (as read):

8 **"QUESTION:** Do you know what standalone mode means?

9 **"ANSWER:** Yes. This is what I understand, is that I
10 understand that speaker 1 will continue to act as an
11 individual speaker despite being grouped together with
12 speakers 2 and 3. So it's doing its own thing even after
13 being part of the group, as I understand it.

14 "As I said, I would defer to a technical expert. I
15 think that's part of what they are tasked with here."

16 **BY MS. CARIDIS:**

17 **Q.** Changing gears a bit, Mr. Bakewell, in forming your
18 opinions, you considered patent licenses that Google produced
19 in this case; correct?

20 **A.** I did.

21 **Q.** And Google has entered into more patent licenses than just
22 those that you reviewed; correct?

23 **A.** True.

24 **Q.** Approximately how many Google patent licenses did you
25 review in performing your analysis in this case?

1 A. I can't give you an exact count, but it's like a number
2 it's like 20. Sort of that gives you the feel for it. Maybe
3 more, maybe less.

4 Q. And you would expect that Google has entered into much
5 more than 20 patent licenses over the term of its company;
6 correct?

7 A. True.

8 Q. And so you just reviewed a handful of Google licenses that
9 you were provided with; correct?

10 A. That's not exactly right. I reviewed all the licenses
11 I believe that were produced in this case by agreement between
12 the parties.

13 Q. You produced the Google licenses that Google lawyers
14 decided to produce in this case; correct?

15 A. So I didn't produce them. I reviewed them.

16 Q. Sorry?

17 A. And my understanding is the way that the process works is
18 there's interrogatories and there's answers to interrogatories,
19 and the licenses that end up being produced are by agreement.
20 Because, as you mentioned, Google has a lot of licenses and
21 there's a lot of patents so there's some subset. And I
22 reviewed everything that was available in this case.

23 Q. And as far as you're aware, Google is the one who decided
24 what to produce or not produce as it relates to Google licenses
25 in this case? Sonos didn't produce any Google licenses;

1 correct?

2 **A.** So the first part of your question I don't agree with. I
3 understand that it's part of the process. You have to ask for
4 licenses and there's production, there's dialogue, and I
5 reviewed all of the licenses that were produced.

6 I can't remember the second part of your question now.

7 **Q.** That's okay.

8 You reviewed all the licenses that were produced by
9 Google; correct?

10 **A.** Correct.

11 **Q.** And that's not all of the licenses that Google has entered
12 into; correct?

13 **A.** That's true. We just said that. I agree.

14 **Q.** And it's your opinion that the Google patent licenses that
15 you reviewed had issues that make them not good benchmarks for
16 this case; correct?

17 **A.** There's some issues, sure.

18 **Q.** But I heard during your direct examination that you have
19 concluded that Google would prefer a lump-sum structure for the
20 hypothetical negotiation in this case; correct?

21 **A.** I think that's the way the industry works and I think
22 that's also Google's preference for that reason.

23 **Q.** But you can't tell the jury sitting here today that Google
24 has never entered into a running royalty license; correct?

25 **A.** I can't say never. I can say that the large majority of

1 its licenses are lump sums.

2 Q. You only looked at 20 -- approximately 20 of those
3 licenses; correct? That's what you just told the jury a couple
4 minutes ago.

5 A. That were produced in this case, correct.

6 Q. Okay. So you also considered some patent purchase
7 agreements that Google produced in this case; correct?

8 A. Yes.

9 Q. And, again, those are not the only patent purchase
10 agreements that Google has entered into in its history;
11 correct?

12 A. Probably.

13 Q. And of the patent purchase agreements that you reviewed,
14 you set aside all of them except for the Outland Research
15 agreement that you talked about on direct examination; correct?

16 A. Right. I looked at them, and I -- I discussed the Outland
17 agreement.

18 Q. And Outland Research is a nonpracticing entity or NPE;
19 correct?

20 A. True. I said that.

21 Q. And the Outland Research agreement was signed in 2011;
22 right?

23 A. Correct.

24 Q. That's eight years before the earliest hypothetical
25 negotiation date in this case; right?

1 A. Correct.

2 Q. And it's also years before Google released the first
3 accused product in this case; correct?

4 A. Two years.

5 Q. And it's your understanding that at least some of the
6 patents sold in the Outland Research agreement are technically
7 comparable to the '885 and '966 patents; correct?

8 A. Patents purchased you mean? You said "sold." You meant
9 the patents purchased by Google?

10 Q. I guess it depends on what side of the transaction you're
11 looking at.

12 A. Yes, I have that understanding from Dr. Schonfeld.

13 Q. And so that understanding that some of the patents are
14 technically comparable include the '694 patent that
15 Dr. Schonfeld discussed on cross-examination; correct?

16 A. Yes, I think so. I don't have those numbers like at the
17 tip of my tongue, but that sounds like one of them.

18 MS. CARIDIS: Mr. Jay, let's get on the screen TX2676,
19 which was admitted into evidence earlier today.

20 BY MS. CARIDIS:

21 Q. Just to confirm, this is one of the patents that you
22 understand is technically comparable to the '885 and '966
23 patents; correct?

24 A. I think so, yes.

25 MS. CARIDIS: Let's look at Figure 2 on page 4.

1 **BY MS. CARIDIS:**

2 **Q.** And you understand from your discussions with
3 Dr. Schonfeld that the patents in the Outland Research
4 agreement, including the '694 patent that's on the screen here,
5 are more essential than the asserted patents in this case;
6 correct?

7 **A.** Right. Looking at the claims there -- that's what he
8 said.

9 **Q.** Now you mentioned some Sonos license agreements in your
10 direct examination. Do you recall that?

11 **A.** Yes.

12 **Q.** And two of those agreements were running royalty and one
13 was lump sum; correct?

14 **A.** Yes, that's what I said.

15 **Q.** And were you here for Ms. Kwasizur testimony last week
16 concerning some of those agreements?

17 **A.** I was.

18 **Q.** And you heard her explain that the lump-sum agreement was
19 entered into after the licensee was found to be a willful
20 infringer?

21 **A.** Yes. There was a lawsuit.

22 **Q.** There was a lawsuit and there was a determination that
23 that licensee was found to be a willful infringer; right?

24 **A.** That's right.

25 **Q.** And so you would agree that because of a determination

1 that the licensee was a willful infringer, that's not a
2 comparable agreement in this case; correct?

3 **A.** No. I think it's because of the number of patents that
4 are involved and the lack of specificity to any comparable
5 patents here.

6 **Q.** You understand that the patents asserted in this case are
7 actually part of that license agreement; correct?

8 **A.** That's only partially true. That's not entirely true.

9 **Q.** Is it your testimony that the license agreement with Denon
10 DEI did not include the licenses that are -- sorry -- did not
11 include the patents that are asserted in this case?

12 **A.** I think they were included as part of a big covenant not
13 to sue, and there's terms in the agreement that relate to that
14 covenant.

15 **Q.** And a covenant not to sue can be thought of as a license;
16 correct?

17 **A.** Sometimes, yes.

18 **Q.** The Federal Circuit has said that the covenant not to sue
19 and the license are just two terms to basically discuss the
20 same thing; right?

21 **MS. BAILY:** Objection to the Federal Circuit opining
22 on the law.

23 **THE COURT:** He is not a lawyer, so sustained.

24 **MS. CARIDIS:** Fair enough.

25 \\\

1 **BY MS. CARIDIS:**

2 **Q.** Sitting here today, Mr. Bakewell, putting aside the
3 agreement that was entered into after a finding of willful
4 infringement, are you aware of Sonos ever agreeing to license
5 any of its patents for a lump sum?

6 **A.** Well, we have three and there's one that is; so if you set
7 aside the one that is, that leaves two that are running
8 royalties. So I guess the answer is yes -- or I think the
9 answer is no to your question. There are no others. If you
10 set the one aside that's a lump sum, then the remaining two are
11 running royalties.

12 **BY MS. CARIDIS:**

13 **Q.** Thank you.

14 **A.** Did I understand your question correctly.

15 **Q.** You understood it perfectly.

16 **A.** Okay.

17 **Q.** You talked in your direct examination about some data that
18 you looked at relating to Google products in this case;
19 correct?

20 **A.** Yes.

21 **Q.** And I believe you said that you looked at data reflecting
22 the use of commands sent to Google speakers that are used to
23 create groups; right?

24 **A.** Among other things.

25 **Q.** And you understand that once a user creates a static

1 group, the whole point of that functionality is they can use
2 that group later without having to create it again?

3 **A.** I don't know about the whole point, but I think that's the
4 result.

5 **Q.** And you also looked at data that measures how many devices
6 were put into speaker groups over a certain period of time;
7 correct?

8 **A.** Yes.

9 **Q.** Now, did you review any data that shows how many computing
10 devices with the Google Home app are connected to Google
11 speakers?

12 **A.** Some, yes, that relates to that issue.

13 **Q.** You reviewed data that Google has provided in this case
14 that shows how many computing devices with the Google Home app
15 are connected to accused Google speakers? That's your
16 testimony?

17 **A.** There's data that relates to that issue. There's not a
18 specific count like your question is, but there is data that
19 relates to that question.

20 **Q.** Thank you.

21 And Google didn't produce the specific counts, to use your
22 terminology; correct?

23 **A.** I don't think so. I think there's broader data, but I
24 don't know about that. Nothing comes to mind.

25 **Q.** And the -- the information that Google did provide, that

1 wasn't for the entire damages period, was it?

2 A. No, it wasn't.

3 Q. It was only for a six-month window of data; correct?

4 A. 200 days.

5 MS. CARIDIS: Mr. Jay, let's pull up PDX14.1.

6 (Pause in proceedings.)

7 BY MS. CARIDIS:

8 Q. And, Mr. Bakewell, were you here in court when Mr. Chan
9 was testifying about this data?

10 A. Yes.

11 Q. And his testimony was that -- and his testimony was that
12 you could not tell from this data how many Prince devices from
13 November 8th are counted in the November 9th row; correct?

14 A. Not entirely correct, no.

15 Q. You heard my colleague here Mr. Richter ask him if you
16 have a -- if you know that there's 3.32 percent of devices on
17 November 8th, you can't tell how many of those are on
18 November 9th? Do you recall that?

19 A. There was a specific question like that, but there was
20 broader testimony about what this data means like when taken
21 together, and so I think there's more that he said that relates
22 to this issue than just the answer to that question.

23 Q. So I'm just talking about the data that we have that
24 Google produced in this case. Okay?

25 A. If you limit it to just this in that question, I can

1 answer that question.

2 Q. Sure. Based on the data on the screen, you cannot tell
3 how many Prince devices from November 8th are counted in the
4 November 9th row; correct?

5 A. Not only from this.

6 Q. Okay.

7 A. You need more information.

8 Q. So if 3.32 percent of connected devices were used on
9 November 8th and a separate 3.38 percent of connected devices
10 were used on November 9th, that would result in 6.7 percent of
11 connected devices being used over those two days; correct?

12 A. Well, that would be totally wrong; but if you did that
13 math, that's the number you get, but that is not the way this
14 data works at all.

15 Q. The data just shows the number of connected devices on a
16 particular date; correct? This data, that's what that shows;
17 right?

18 A. Yes.

19 Q. And Google didn't provide you data so that you could
20 assess how many speakers had been placed into speaker groups
21 during the entire damages period in this case; correct?

22 A. I think that it did. I think that you can make a
23 reasonable estimate of that. There's not a specific report
24 that has that count, like a spreadsheet like this, but I think
25 there's data where you can at least get the direction of it.

1 Q. So you might be able to make assumptions or extrapolate,
2 but Google did not provide you with actual data so that you
3 could tell how many speakers were put into groups during the
4 entire damages period; correct?

5 A. Put into groups? Oh, not during the entire damages
6 period. It has the -- if your question is about the 200-day
7 window, this data was for a 200-day window.

8 Q. And the damages period in this case is much longer than
9 200 days; correct?

10 A. It's longer.

11 Q. Mr. Bakewell, you reviewed a variety of business surveys
12 and studies produced by Google in forming your opinions in this
13 case; correct?

14 A. Correct.

15 Q. Can I have you turn to Exhibit TX0158 in your binder?

16 A. Yes.

17 Q. This is a Google survey presentation titled "Prince
18 Conjoint Survey Results" dated November 2019; correct?

19 A. It is.

20 Q. And Prince is the code name for Nest Audio, which is one
21 of the accused products in this case; correct?

22 A. I think that's true, yes.

23 Q. And you cited and discussed this survey in your report;
24 correct?

25 A. I did.

1 **MS. CARIDIS:** Your Honor, I'd move to admit TX0158
2 into evidence.

3 **MS. BAILY:** No objection.

4 **THE COURT:** All right. In evidence.

5 (Trial Exhibit 158 received in evidence.)

6 **BY MS. CARIDIS:**

7 **Q.** And, Mr. Bakewell, can you please turn to page 3 of
8 TX0158?

9 **A.** (Witness examines document.)

10 **Q.** And do you see the second bullet point under "Key
11 Takeaways"?

12 **A.** Did you say the first -- the one with the big red arrow?
13 I should look on the screen. That's the one you're referring
14 to.

15 **Q.** I'm referring to the first of the highlighted bullet
16 points?

17 **A.** I see that.

18 **Q.** If says (as read):

19 "Offering a 2 pack will increase share. Future
20 feature recs also support 2 pack."
21 Correct?

22 **A.** Yes, it says that.

23 **Q.** And in the first sub-bullet under that line it says (as
24 read):

25 "60 percent of consumers plan to buy more than one

1 smart speaker and almost half build a 2 pack of smart
2 speakers."

3 Correct?

4 **A.** That's what it says.

5 **Q.** Those are some of the key takeaways from this survey that
6 Google conducted; correct?

7 **A.** It's on this page. It says "key takeaways."

8 **Q.** And just to orient us, Mr. Chan testified or explained
9 that two packs are bundles are when Google would sell more than
10 one device at a time; correct?

11 **A.** Yeah. I think he said something like that, yes.

12 **Q.** And the date of this document -- and we can flip to the
13 cover -- we can see the date is the same month as the
14 hypothetical negotiation for the '966 patent, November 2019;
15 correct?

16 **A.** True.

17 **Q.** So let's turn to page 23. And I think Mr. Jay will bring
18 it up on the screen if you don't want to flip through the page.

19 This page is titled "Likelihood to add a third smart
20 speaker is decently high but a 5 pack seems niche."

21 Did I read that correctly?

22 **A.** Yes, you did.

23 **Q.** So I want to focus on the top portion of the graphic
24 that's on this page.

25 Now, I don't have a calculator, but I think I can handle

1 this math. Google's own document from November of 2019, the
2 same month of the hypothetical negotiation of the '966, reports
3 that 58 percent of survey respondents were either very likely
4 or extremely likely to purchase a bundle of three smart
5 speakers; correct?

6 **A.** Yes, you did that. I did the math too. I think that's
7 right.

8 **Q.** I'm glad we agree. So let's flip forward a few pages to
9 page 36.

10 And, Mr. Bakewell, do you recognize this figure?

11 **A.** I do.

12 **Q.** And this was a figure that you actually copied directly
13 into the text of your report; right?

14 **A.** I took a picture of this, like a screenshot, and it's in
15 my report, yes.

16 **Q.** And in that report you described this graphic as depicting
17 some of the findings of Google's November 2019 survey; right?

18 **A.** That's right.

19 **Q.** And you described this graphic as showing what features
20 survey respondents found appealing; correct?

21 **A.** I don't remember exactly the word that I used, but
22 "appealing" shows up in the title.

23 **MS. CARIDIS:** So, Mr. Jay, let's blow up that figure a
24 bit.

25 \\\

1 **BY MS. CARIDIS:**

2 **Q.** And, Mr. Bakewell, do you see that there's a line going
3 through the graphic over halfway up that's labeled "Anchor"?

4 **A.** I do.

5 **Q.** And the text beneath that Mr. Jay has so helpfully blown
6 up says (as read):

7 "An item above the anchor is actually appealing."

8 Do you see that?

9 **A.** Yes.

10 **MS. CARIDIS:** So, Mr. Jay, let's zoom in on the left
11 side of the screen now.

12 **BY MS. CARIDIS:**

13 **Q.** And, Mr. Bakewell, the feature of group speakers to hear
14 music in multiple rooms at the same time is found above the
15 anchor line; correct?

16 **A.** It's the lowest one above.

17 **Q.** And because it is above, according to this graphic, it is
18 an item that is actually appealing; correct?

19 **A.** Well, "actually" is in quotes and there's a reason for
20 that. That's the only reason why I point it out. I think it's
21 important that you include those quotes when you say that
22 because it means something.

23 **Q.** Okay. "Actually appealing."

24 **MS. CARIDIS:** Okay. We can take that slide down,
25 Mr. Jay.

1 **BY MS. CARIDIS:**

2 **Q.** Mr. Bakewell, you agree that all else equal, licenses
3 between competitors contain royalties that are significantly
4 higher than those between noncompetitors; correct?

5 **A.** Yeah, sort of in a -- in a -- myopically that's true.

6 **THE COURT:** What do you mean myopically?

7 **THE WITNESS:** Because you have to consider overall the
8 competitive circumstances, and that says "holding all else
9 equal." It's like looking only at an issue, and that's what I
10 meant by that.

11 **THE COURT:** Well, but -- all right. But you agree
12 that everything else being the same, because we can only
13 consider things one at a time, everything else being the same,
14 licenses between two competitors generally tend to have a
15 higher royalty?

16 **THE WITNESS:** Generally that's true. I think you also
17 have to look at the features, but generally that's true, yes.

18 **THE COURT:** All right. Well, yes, there are other
19 factors to consider, but she's just asking about the
20 competitive effect.

21 Okay. Can I inter -- while I'm interjecting here, I want
22 to -- I think everyone agrees with this, but don't we all agree
23 that the patents require three zones; right? No, you don't?

24 **MS. BAILY:** Yes.

25 **THE COURT:** To have overlapping, how can you not? All

1 the patents refer to three; right? Three?

2 **MS. CARIDIS:** Your Honor, the patents --

3 **THE COURT:** Three speakers?

4 **MS. CARIDIS:** The patents refer to three speakers, but
5 this goes back to the question of configured or capability that
6 we've been talking about.

7 **THE COURT:** All right. Well, yes, okay.

8 But even under that approach, the controller would have to
9 be configured to work with three speakers?

10 **MS. CARIDIS:** I believe for the '966 patent the
11 controller would have to have programming instructions that
12 when executed are capable of configuring three speakers.

13 **THE COURT:** And so does the '885. It requires three
14 speakers.

15 **MS. CARIDIS:** Well, the '885 is on the side of the
16 speaker and so ultimately the '885 patent, the claims certainly
17 do require -- or certainly do list three speakers.

18 **THE COURT:** Well, I'm going to tell the jury that it
19 requires three in both.

20 Now, so there's a difference between multiple and three.
21 Multiple can be three. It could be ten, but it can also be
22 two.

23 So keep that in mind. And merely because we have multiple
24 or speaker groups is not necessarily enough. There have to be
25 overlapping. Remember that idea, overlapping speaker groups.

1 And sometimes we're not focusing on that requirement.

2 Sometimes you do. So -- but let's -- let's keep that in mind.

3 All right. Go ahead.

4 **MS. CARIDIS:** Mr. Jay, let's pull up Mr. Bakewell's
5 rebuttal report at page 225, paragraph 647.

6 (Pause in proceedings.)

7 **BY MS. CARIDIS:**

8 **Q.** And starting at the beginning of the second line,
9 Mr. Bakewell, you wrote (as read):

10 "Holding all else equal, licenses between competitors
11 contain royalties that are significantly higher than those
12 between noncompetitors."

13 Those are your words; correct?

14 **A.** Yes.

15 **Q.** But in this case you generally don't think Sonos and
16 Google are competitors; is that correct?

17 **A.** I'd say it the opposite. I think that they compete but
18 it's in a limited way.

19 **THE COURT:** Well, how was it at the time of the
20 alleged negotiation when alleged infringement first started?
21 That's when the negotiation takes place. Were they competitors
22 then?

23 **THE WITNESS:** They were competitors and they were
24 working together to partner, and they had some products that
25 competed and some that didn't. So you could say, yes, they

1 were competitors and stop. I think that would be true, but I
2 think there's a little more to it.

3 **THE COURT:** Next question.

4 **MS. CARIDIS:** Let's turn to page 18 of TX0158.

5 **BY MS. CARIDIS:**

6 **Q.** And, again, this slide, just to remind ourselves, comes
7 out of a Google document, an internal Google document, dated
8 November 2019; right?

9 **A.** I think it's the same document.

10 **Q.** Yep.

11 And the slide is titled "Current State." Do you see that?

12 **A.** Yes.

13 **Q.** And there are several speakers shown below the heading;
14 correct?

15 **A.** Yes.

16 **Q.** And the Google Home Mini, the Google Home, and the Google
17 Home Max are the first three speakers; correct?

18 **A.** Correct.

19 **Q.** And you understand those products are accused of
20 infringement in this case?

21 **A.** I do.

22 **Q.** And after those Google products, this internal Google
23 document shows speakers from Amazon, Sonos, Apple, and Bose;
24 correct?

25 **A.** Yes.

1 **MS. CARIDIS:** And let's turn to page 21 of TX0158.

2 **BY MS. CARIDIS:**

3 **Q.** Now, this slide looks similar but it's titled "Adding a 2
4 pack Prince to the line-up slightly improves Google's overall
5 share." Do you see that?

6 **A.** Yes.

7 **Q.** And under Google Home we now see a column that shows two
8 speakers in a pack; correct?

9 **A.** Yes, I see there's two columns actually. Oh, that column,
10 that's right, correct.

11 **Q.** And so "2 pack Prince," as indicated by the title, is in
12 reference to speakers that are sold or bundled together;
13 correct?

14 **A.** Yes.

15 **Q.** And Google bundled those speakers together so they can be
16 used in a group like stereo pair; correct?

17 **A.** No, not necessarily. I think there -- that's one
18 potential use. Another could be you could put one in each room
19 or you could give one to somebody else and keep one for
20 yourself.

21 **MS. CARIDIS:** I'll read into the record Bakewell depot
22 transcript at page 209, line 12 to 22.

23 And, Your Honor, is it okay if I omit the objection?

24 **THE COURT:** Well, it depends. If the objection is
25 necessary to understand the answer, then you've got to read it;

1 but if it is just a boilerplate, you don't have to read it.
2 I'll leave it to -- do you care?

3 **MS. BAILY:** No, Your Honor.

4 **MR. PAK:** No, Your Honor.

5 **THE COURT:** All right. You can leave it out.

6 **MS. CARIDIS:** (as read):

7 **"QUESTION:** Okay. So why does Google sell the speakers in
8 sets?

9 **"ANSWER:** I think it relates to potentially being used in
10 stereo.

11 **"QUESTION:** So in a group?

12 **"ANSWER:** I've seen stereo referred to in different ways.
13 Sometimes it's just called stereo and maybe sometimes it's
14 called grouping. On the app it's more, I think, oriented
15 around stereo."

16 **BY MS. CARIDIS:**

17 **Q.** And so in this -- in the context of this bundling and
18 multiple speakers -- selling multiple speakers at the same
19 time, we saw a few minutes ago in this same document at page
20 23 -- and this is TX0158 -- that 58 percent of survey
21 respondents indicated they were very likely or extremely likely
22 to purchase a bundle of three smart speakers at the time of the
23 hypothetical negotiation of the '966 patent; correct?

24 **A.** Um, I -- I think it's adding a third speaker into a
25 bundle. Yes, I see that.

BAKEWELL - REDIRECT / BAILY

1 **Q.** The answer is yes; correct?

2 **A.** I wasn't quite sure with your question, but it says three
3 speakers for \$250 so I'm assuming they're grouped together in a
4 bundle.

5 **Q.** And 58 percent of Google survey respondents indicated they
6 were very likely or extremely likely to purchase three smart
7 speakers; correct?

8 **A.** That's what's on here, correct.

9 **MS. CARIDIS:** Pass the witness.

10 **THE COURT:** Okay. Thank you.

11 And now we go to Google.

12 **MS. BAILY:** Thank you, Your Honor.

13 **REDIRECT EXAMINATION**

14 **BY MS. BAILY:**

15 **Q.** I just want to go through a couple of things that were
16 raised in your cross-examination, Mr. Bakewell.

17 First and maybe most fundamentally, just to be clear,
18 because I think there was some confusion, if the '885 patent is
19 found by the jury to be invalid, then there is no infringement
20 and no damages; correct?

21 **A.** That's correct.

22 **Q.** And now there were a lot of questions about noninfringing
23 alternatives. Do you recall that?

24 **A.** I do.

25 **Q.** And you considered multiple noninfringing alternatives in

1 this case; correct?

2 A. I did.

3 Q. And with respect to technical opinions related to those
4 noninfringing alternatives, you relied on Dr. Schonfeld?

5 A. I did in part.

6 Q. And did you rely on Dr. Schonfeld for the analysis of the
7 claim language at issue in this case?

8 A. I relied on him to do that, yes.

9 Q. And was it your understanding that Dr. Schonfeld has
10 provided opinions that the noninfringing alternatives are
11 noninfringing?

12 A. Yes.

13 Q. And did you rely on Dr. Schonfeld's opinions in that
14 respect?

15 A. I did, yes.

16 Q. And you used them as one of the inputs for your opinions
17 regarding the valuation of the claimed technology for these
18 patents as related to those noninfringing alternatives?

19 A. It's one of the inputs, yes.

20 Q. And what else did you consider related to that on
21 noninfringing alternatives?

22 A. So I think that Dr. Almeroth for the second noninfringing
23 alternative, he doesn't raise an issue as to whether it's not
24 infringing so that's one of the things.

25 And then I also considered economic considerations related

1 to commercial acceptability of the noninfringing alternatives.

2 Q. We just heard mention of other Google patent licenses
3 between the one that you called to the jury's attention; right?

4 A. Yes.

5 Q. Okay. You were here for Mr. Malackowski's testimony?

6 A. I was.

7 Q. Did he provide any testimony on any other Google patent
8 licenses?

9 A. No.

10 Q. Is it your understanding that he had access to exactly the
11 same documents that you did?

12 A. Yes. We both had access to the same information.

13 Q. Now, we talked -- you talked on cross a little bit about
14 some usage information?

15 A. Yes.

16 Q. And I think there was a presentation of one set of data
17 points from one set of data. Is that how you understood that
18 slide?

19 A. Yes.

20 Q. And you're aware that there were multiple sets of usage
21 data provided to you in this case?

22 A. That's correct.

23 Q. And can you just go over for the jury, because there's
24 only one reference there, what all the different types of data
25 were that you were presented with?

1 **A.** Sure. So Google presented data about daily activations,
2 like how much -- how many speakers were activated on a
3 particular day.

4 And then it provided data for three windows of time.
5 30-day speakers that are activated or like active -- this isn't
6 quite right, but a term is like "active users" but it's
7 actually "active speakers" -- so speakers that are active in
8 groups.

9 And then they did it for 100 days and 200 days, and there
10 was like an enormous amount of data that -- it's a huge
11 spreadsheet with multiple tabs, that's one spreadsheet and
12 that's another.

13 And then there is survey information that relates to usage
14 too that Google produced 30 surveys, Sonos produced 30 surveys
15 too, and that has some information that you can gather from it
16 that actually relates to the lack of usage, but that
17 information goes to that question you just asked.

18 **Q.** And with respect to the data that was provided, does the
19 additional datasets give you any indication as to whether the
20 daily data related to speakers in groups is additive by day?

21 **A.** Well, you can tell from looking at it it's not additive by
22 day. When you look at it, trend it out, those numbers stay
23 level for a prolonged period of time.

24 So the inference of the question is that you would just
25 add three together. I mean, if you'd go 33 days, if I have my

1 math right, and you'd start to have numbers, if that's what
2 they were -- the supposition is supposed to be, numbers would
3 be over a hundred percent. And we don't have any data like
4 that or indication like that, and it wouldn't even make sense.
5 You go for 200 days and you'd have 200 percent.

6 So that's one thing that you can tell from looking at the
7 data. You can also tell when you trend it out.

8 And then there's a lot of evidence that I've seen that, to
9 the extent this grouping is done, it's by the overlapping
10 grouping. It's by a very small subset of that, and it would be
11 contained in a small group of users.

12 Q. Were you here for Mr. Chan's testimony?

13 A. I was.

14 Q. And he interpreted the three datasets based on his
15 experience working with Google speakers. Did you hear that?

16 A. Yes.

17 Q. He provided his understanding of that data in that
18 context; right?

19 A. Yes, he did.

20 Q. And he said that no more than 5 percent of users do any
21 kind of grouping with respect to the Google speakers; correct?

22 A. That was grouping in general, and then he talked about
23 overlapping grouping being much lower.

24 Q. And you just mentioned that you reviewed survey evidence
25 in this case?

BAKEWELL - REDIRECT / BAILY

1 **A.** Yes.

2 **Q.** Can you give us an idea of the amount of survey evidence
3 that you reviewed? I think you saw one on cross.

4 **A.** It was a lot. The Google and Sonos, each produced over 30
5 surveys.

6 **MS. BAILY:** And, Mr. Fisher, very quickly can we pull
7 up Exhibit 13 and 13.1 from Mr. Bakewell's report?

8 **BY MS. BAILY:**

9 **Q.** In doing your work analyzing all of the survey evidence in
10 this case, did you see any evidence that overlapping groups of
11 at least three speakers were anywhere referenced in any survey
12 as something that was attractive or valuable in connection with
13 the speakers that we're talking about here?

14 **A.** No. There's lots of features that are mentioned and
15 studied in these surveys, and this one is Sonos. So of the 30
16 surveys it produced, only 6 mentioned grouping or things that
17 might be like speaker grouping, but you can see they mention
18 all kinds of other features in these.

19 Generally what these companies are interested in and what
20 drives sales are other things that are provided in these
21 speakers. And you can see in particular for Sonos this relates
22 to competition where Sonos is focused on sound quality. All
23 six of these had some sound quality listed.

24 **Q.** You were shown in your cross-examination some documents
25 that talk about two speakers in a pack and stereo pairing?

BAKEWELL - REDIRECT / BAILY

1 **A.** Yes.

2 **Q.** Do you understand that that relates -- both of those
3 things relate to two speakers?

4 **A.** Yes.

5 **Q.** Do you understand that in this case three speakers are
6 required for infringement of the patents in suit?

7 **A.** That's my understanding from what His Honor was just
8 saying a moment ago, and so I'd say yes.

9 **MS. BAILY:** All right. I'll pass the witness. Thank
10 you.

11 **THE COURT:** Before you leave the witness, just I lost
12 track of it. What is the dollar amount that he says would be
13 paid for in the hypothetical negotiation?

14 **MS. BAILY:** Somewhere between \$200,000 and
15 \$2.5 million.

16 **THE COURT:** Is that correct?

17 **THE WITNESS:** Yes, 200,000 to 2.25 million.

18 **THE COURT:** Is that a lump sum?

19 **THE WITNESS:** Lump sum, yes.

20 **THE COURT:** Okay. Thank you. I missed it.

21 All right. Recross?

22 **MS. CARIDIS:** No, Your Honor.

23 **THE COURT:** Okay. You may step down.

24 **THE WITNESS:** Thank you, Your Honor.

25 **THE COURT:** Thank you, Mr. Bakewell.

1 (Witness excused.)

2 **THE COURT:** It's too late in the day to start a new
3 witness, don't you think? Is that all right?

4 **MR. PAK:** Yes, Your Honor.

5 **MR. SULLIVAN:** Agreed, Your Honor.

6 **THE COURT:** But this is your last witness anyway;
7 right?

8 All right. So why don't we hear you say "I rest."

9 **MR. PAK:** Yes, let me say that.

10 **THE COURT:** Please do.

11 Okay. So --

12 **MR. PAK:** Yes, Your Honor. Your Honor, so I'll say it
13 on the record: Google rests its case in chief.

14 And, Your Honor, we will raise our 50 motions in person
15 tomorrow.

16 **THE COURT:** All right. They can be done after the
17 jury has exited.

18 But we still have a little more evidence to hear by way of
19 rebuttal tomorrow, but you will not be here too long tomorrow.
20 I'm going to say it could be as brief as two hours, and then
21 you'll be going home a little early tomorrow. So we'll see.

22 Thank you for your careful attention. We'll see you here
23 tomorrow at the normal time.

24 **THE CLERK:** All rise for the jury.

25 (Proceedings were heard outside the presence of the jury:)

1 **MR. PAK:** Your Honor?

2 **THE COURT:** Be seated please.

3 **MR. PAK:** On the record, I just want to make sure, I
4 was looking at the live transcript there and I meant to say
5 that we will raise our 50 motions pursuant to the procedure
6 that we discussed with His Honor through written submissions.
7 Thank you.

8 **THE COURT:** So each side is going to raise your
9 Rule 50 motions later; right?

10 **MR. PAK:** Yes, Your Honor.

11 **THE COURT:** Okay. Is that right?

12 **MR. SULLIVAN:** Yes, Your Honor.

13 **THE COURT:** Well, timewise, Google has by my count 28
14 minutes left and Sonos has 40 plus 26. So you have a little --
15 you have more than an hour left.

16 But no matter how you cut it, when an hour and a half is
17 up tomorrow, it's over. So at least the evidence part.

18 Anything I can help you with today before we adjourn?

19 **MR. PAK:** Not from Google, Your Honor.

20 **MR. SULLIVAN:** Nothing from us, Your Honor.

21 **THE COURT:** I'm going to try -- I don't know if I can
22 get you the instructions -- I doubt it -- today, but I'm going
23 to try to get you at least a form of verdict form.

24 And I don't want you to submit more paperwork tonight. I
25 just want you to see what we're up against and for you to put

1 your heads together and come up with a way to streamline this
2 for the jury. We want it to be not simple-simple but we don't
3 want it to be overly complex.

4 So please read it with that in mind, and you'll get your
5 opportunity to object to the verdict form in due course.

6 Okay. See you tomorrow.

7 **MR. PAK:** Thank you, Your Honor.

8 **MR. SULLIVAN:** Thank you, Your Honor.

9 **THE CLERK:** Court is in recess. Court is adjourned.

10 (Proceedings adjourned at 12:51 p.m.)

11 ---oOo---

CERTIFICATE OF REPORTER

I certify that the foregoing is a correct transcript
from the record of proceedings in the above-entitled matter.

DATE: Wednesday, May 17, 2023



Marla F. Knox, CSR No. 14421, RPR, CRR, RMR
United States District Court - Official Reporter